

# **Exhibit B**

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*Attorneys for Plaintiffs and the Proposed Class*

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

NICHOLAS MALONE,  
CHRIS AYERS,  
JAMES BACKUS,  
BRIAN CONWAY,  
DAVID EATON,  
STEVEN GRAVEL,  
JAMES RAAYMAKERS, and  
TOD WEITZEL,  
on behalf of themselves and all others  
similarly situated,

Plaintiffs,

v.

WESTERN DIGITAL CORPORATION,  
Defendant.

Case No. 5:20-cv-03584-NC

**SECOND AMENDED  
CLASS ACTION COMPLAINT**

**JURY TRIAL DEMANDED**

1 Plaintiffs Nicholas Malone, Chris Ayers, James Backus, Brian Conway, David Eaton,  
 2 Steven Gravel, James Raaymakers and Tod Weitzel, individually, as private attorneys general,  
 3 and/or on behalf of all others similarly situated, allege as follows, on personal knowledge and  
 4 investigation of their counsel, against Defendant Western Digital Corporation (“WDC,”  
 5 “Western Digital” or “Defendant”):

## 6 INTRODUCTION

7 1. This case is brought against Western Digital Corporation on behalf of all United  
 8 States residents who purchased certain hard drives which were branded “WD Red NAS” and  
 9 were explicitly advertised and represented to be designed for and suitable for use in NAS  
 10 (Network Attached Storage) devices, but which in fact are not suitable for that intended use and  
 11 which put customer data at greater risk of data loss or destruction.<sup>1</sup> The hard drives contain  
 12 inappropriate recording technology called “SMR” (Shingled Magnetic Recording), which by its  
 13 very nature is detrimental to and incompatible with usage in NAS devices and RAID storage  
 14 systems. WDC surreptitiously snuck—without any disclosure whatsoever—this cheaper SMR  
 15 technology into its WD Red NAS hard drives in or about 2018 in an effort to shave costs while  
 16 keeping the selling price the same.

17 2. This inappropriate SMR technology replaced the more-expensive-to-produce but  
 18 industry-standard “CMR” (Conventional Magnetic Recording) technology which WDC had  
 19 previously utilized—for nearly a decade—in these very same “WD Red NAS” branded hard  
 20 drives. Notably, WDC is the only hard drive manufacturer in the world who has ever used SMR  
 21 technology in NAS-labeled hard drives; all other manufacturers have solely used CMR  
 22 technology. Both of WDC’s largest competitors, Seagate Technology and Toshiba Corporation,  
 23 have publicly stated that SMR is incompatible with NAS and RAID. Even WDC’s own  
 24 engineers agreed, and were on the record stating—in since-deleted text on a WDC technical  
 25 blog—that drive-managed SMR technology (like that used in the Red NAS drives), “Due to the  
 26

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27 <sup>1</sup> The affected WD Red NAS hard drives have the following SKUs: WD20EFAX (2TB  
 28 capacity), WD30EFAX (3TB capacity), WD40EFAX (4TB capacity) and WD60EFAX (6TB  
 capacity) (collectively, the “WD Red NAS drives” or “WD Red NAS hard drives”).

1 wide range of performance variability and unpredictability” is “unacceptable” for enterprise use  
 2 and is only appropriate for “client PC use and external backup HDDs in the client space.”<sup>2</sup>

3 3. WDC has been sneaking SMR technology into its NAS hard drives since 2018.  
 4 By utilizing drive-managed SMR, WDC was able to hide the existence of the SMR technology  
 5 and to cause the drives to be recognized by NAS and RAID systems as if they were traditional  
 6 (but unusually poor-performing) CMR drives.

7 4. Meanwhile, customers who purchased and utilized these hard drives for their  
 8 advertised and intended purpose—in NAS devices and in RAID arrays—experienced, at best,  
 9 terrible performance of between 70% to 1,000% slower write speed and read/write latency  
 10 compared to CMR drives, and also increased risk of data loss during RAID rebuilds due to  
 11 greatly increased rebuild times. At worst, customers experienced hard drives that froze up and  
 12 performed so badly that they were detected by the NAS or RAID array as failed hardware and  
 13 dropped from the disk array, causing catastrophic data loss. Even adding just one of these  
 14 inferior SMR hard drives to an existing storage array (which otherwise contains traditional,  
 15 good-performing CMR hard drives) will poison the entire drive array, causing the entire array  
 16 to suffer this poor performance and greater risk of data loss.

17 5. WDC was able to get away with this fraud until April 2020 because it  
 18 intentionally hid, and even outright lied about, its use of the SMR technology until it was  
 19 forced to admit its scheme in response to an investigation by a leading storage technology  
 20 online publication on April 14, 2020. Until then, WDC did not disclose its use of the SMR  
 21 technology anywhere—including on its product datasheets. Based on information and belief,  
 22 WDC did not even disclose its use of the SMR technology to its vendor-partners who  
 23 manufactured the NAS devices for which the hard drives were purportedly designed. Based on  
 24 information and belief, WDC customer support staff were instructed to refuse to acknowledge  
 25

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26 <sup>2</sup> For the original version of the WDC technical blog, see the Internet Archive Wayback  
 27 Machine archived version dated April 23, 2020, available  
 28 at: <https://web.archive.org/web/20200423133021/http://zonedstorage.io/introduction/smr/>.  
 After the Red NAS SMR scandal broke, WDC cleansed the webpage of any negative  
 references to DM-SMR; see the current version at <http://zonedstorage.io/introduction/smr/>.

1 to customers that the WD Red NAS drives utilized SMR technology—even when asked—and  
2 would blame “user error” for bad performance and problems. In fact, a senior WDC executive  
3 as recently as March 30, 2020 outright denied that any WD Red NAS hard drives used SMR  
4 technology—before WDC was forced to publicly reverse itself two weeks later.

5 6. Since WDC’s scheme was brought to light four months ago, three of the leading  
6 NAS device manufacturers (specifically, Synology, Inc., iXsystems and Drobo, Inc.) have  
7 blacklisted WD Red NAS Drives with SMR technology, removing them from their hardware  
8 compatibility lists. Those NAS manufacturers now urge their customers not to use the hard  
9 drives in their NAS devices because the drives are in fact not appropriate for the hard drives’  
10 advertised and intended purpose.

11 7. Remarkably, WDC’s response, even after getting caught red-handed, has been to  
12 claim that using SMR in NAS drives is a good idea and that it has done nothing wrong. In a  
13 blog post WDC put out on April 20, 2020 in response to the snowballing fiasco, WDC even  
14 attempted to blame its own customers for the problems they were experiencing. WDC accused  
15 its customers of overusing the drives “in system workloads far exceeding their intended uses,”  
16 suggesting that affected customers somehow should have known to purchase different NAS  
17 hard drives (i.e., NAS drives with CMR technology) instead, even though WDC had not  
18 previously disclosed what recording technology any of its NAS hard drives had used.

19 8. Meanwhile, to this day, WDC continues to falsely advertise that these SMR-  
20 technology WD Red NAS hard drives are “**Built for NAS compatibility,**” are “**specifically**  
21 **designed for use in NAS systems with up to 8 bays,**” are “**purpose-built for NAS,**” “**Helps**  
22 **ensure your data is protected ... in a NAS or RAID environment,**” and are appropriate for  
23 “**Small and home office NAS systems in a 24x7 environment.**”

24 9. WDC knows these representations and advertisements are false or deceptive.  
25 WDC knows that these hard drives should never have been labeled and advertised as “NAS” or  
26 “RAID” compatible hard drives. WDC has been told by its own vendor-partners (who have  
27 blacklisted these supposedly “Built for NAS compatibility” hard drives) that these hard drives  
28 are not compatible with their NAS devices and are not fit for the drives’ advertised and

1 intended purpose. WDC knows that thousands of customers have suffered poor performance  
 2 and/or data loss, and that thousands of customers are now—justifiably—worried that the hard  
 3 drives are essentially ticking time bombs that risk the destruction of customer data and files at  
 4 any moment due to increased likelihood of failure, especially during the RAID rebuilding  
 5 process.

6 10. But WDC refuses to make things right. WDC would rather continue defrauding  
 7 its customers and continue leveraging—and ultimately squandering—its past best-in-class  
 8 reputation to increase its short-term profits.

9 11. As a result of WDC’s fraud and deception, thousands of customers nationwide,  
 10 including the eight Plaintiffs, who purchased these WD Red NAS hard drives for their  
 11 advertised and intended use, have been duped and have suffered harm and damages. The hard  
 12 drives are not suitable for their intended purpose—and are in fact dangerous to customer data.

13 12. Plaintiffs bring this action individually and on behalf of a Class and Subclasses  
 14 of all other similarly situated purchasers to recover damages, restitution and injunctive relief  
 15 for: **(1)** violation of California’s Consumers Legal Remedies Act (“CLRA”), Civil Code §§  
 16 1750, *et seq.*; **(2)** violation of California’s False Advertising Law (“FAL”), Cal. Bus & Prof  
 17 Code § 17500 *et seq.*; **(3)** violation of California’s Unfair Competition Law (“UCL”), Cal. Bus.  
 18 & Prof. Code §§ 17200 *et seq.*; **(4)** Violation of the Florida Deceptive and Unfair Trade  
 19 Practices Act, Fla. Stat. §§ 501.201, *et seq.*; **(5)** Violation of the Massachusetts Unfair and  
 20 Deceptive Business Practices Act, Mass. Gen. Laws Ch. 93A, § 9; **(6)** Violation of the Missouri  
 21 Merchandising Practices Act, Mo. Rev. Stat. §§ 407.010, *et seq.*; **(7)** Violation of New York  
 22 General Business Law § 349; **(8)** Violation of New York General Business Law § 350; **(9)**  
 23 Violation of the Virginia Consumer Protection Act, Va. Code Ann. §§ 59.1-196, *et seq.*; **(10)**  
 24 Violation of the Wisconsin Deceptive Trade Practices Act, Wis. Stat. §§ 100.18, 100.20; **(11)**  
 25 Breach of Express Warranty; **(12)** Breach of Implied Warranty; and **(13)** Breach of Implied  
 26 Warranty Under the Song-Beverly Act, Cal. Civ. Code §§ 1790 *et seq.* and California  
 27 Commercial Code § 2314.  
 28

**THE PARTIES**

13. Plaintiff Nicholas Malone is a citizen and resident of Madison, Wisconsin.
14. Plaintiff Chris Ayers is a citizen and resident of Temple Terrace, Florida.
15. Plaintiff James Backus is a citizen and resident of Suffolk, Virginia.
16. Plaintiff Brian Conway is a citizen and resident of Mansfield, Massachusetts.
17. Plaintiff David Eaton is a citizen and resident of Kirkwood, Missouri.
18. Plaintiff Steven Gravel is a citizen and resident of Delmar, New York.
19. Plaintiff James Raaymakers is a citizen and resident of Antelope, California.
20. Plaintiff Tod Weitzel is a citizen and resident of Sunnyvale, California.
21. Defendant Western Digital Corporation is a Delaware corporation with its principal place of business and/or nerve center located at 5601 Great Oaks Parkway, San Jose, California 95119.

**JURISDICTION AND VENUE**

22. **Subject Matter Jurisdiction.** The Court has subject matter jurisdiction over this civil action pursuant to 28 U.S.C. § 1332(d)(2)—*i.e.*, Class Action Fairness Act jurisdiction—because the amount in controversy exceeds the sum or value of \$5 million (exclusive of interest and costs) and is a class action in which any member of a class of plaintiffs is a citizen of a state different from any defendant.

23. **Personal Jurisdiction.** This Court has personal jurisdiction over Defendant because: (1) Defendant WDC is headquartered in San Jose, California (which is within the Northern District of California) and is authorized to do business and regularly conducts business in the State of California such that the maintenance of this lawsuit does not offend traditional notions of fair play and substantial justice; and/or (2) Defendant has committed tortious acts within the State of California (as alleged, without limitation, throughout this Complaint).

24. **Venue.** Venue is proper in the Northern District of California because, pursuant to 28 U.S.C. § 1391(b)(1), this judicial district is a judicial district in which Defendant WDC resides, and pursuant to 28 U.S.C. § 1391(c)(2), for venue purposes WDC shall be deemed to

1 reside in this judicial district because WDC is subject to the court’s personal jurisdiction with  
 2 respect to this civil action.

### 3 **COMMON FACTUAL ALLEGATIONS**

#### 4 **I. OVERVIEW OF HARD DRIVE TECHNOLOGY**

5 25. A hard drive disk (“HDD”) is a form of magnetic mass storage. Each hard drive  
 6 contains a stack of circular plates of magnetic material called “platters,” divided into billions of  
 7 tiny areas called “bits” that can be independently magnetized (to store a 1) or demagnetized (to  
 8 store a 0). Data is “read” (retrieved) or “written” (recorded) onto an HDD by converting  
 9 strings of bits into electrical current fed through an electromagnet that changes the  
 10 magnetization of each bit. Once the information is written onto the HDD, the HDD uses a  
 11 magnetic reader to turn the data back into a useful form (the file to be stored or retrieved),  
 12 much like a record player’s needle translates a record’s grooves into music.<sup>3</sup>

13 26. To store the amount of data that HDDs store today, the HDDs must contain  
 14 billions of bits. Thus, “areal density” comes into play, which is the number of bits of data that  
 15 can be recorded onto a platter and is measured by the number of bits or gigabits (one billion  
 16 bits) per square inch. Higher areal density values allow for greater storage using the same  
 17 amount of disk space.<sup>4</sup>

18 27. There are several methods that exist to read and write data to HDDs and  
 19 maximize areal density. The first of these is Perpendicular or Conventional Magnetic  
 20 Recording (“CMR”). CMR “works by aligning the poles of the magnetic elements, which  
 21 represent bits of data, perpendicularly to the surface of the disk. Magnetic tracks are written  
 22  
 23  
 24

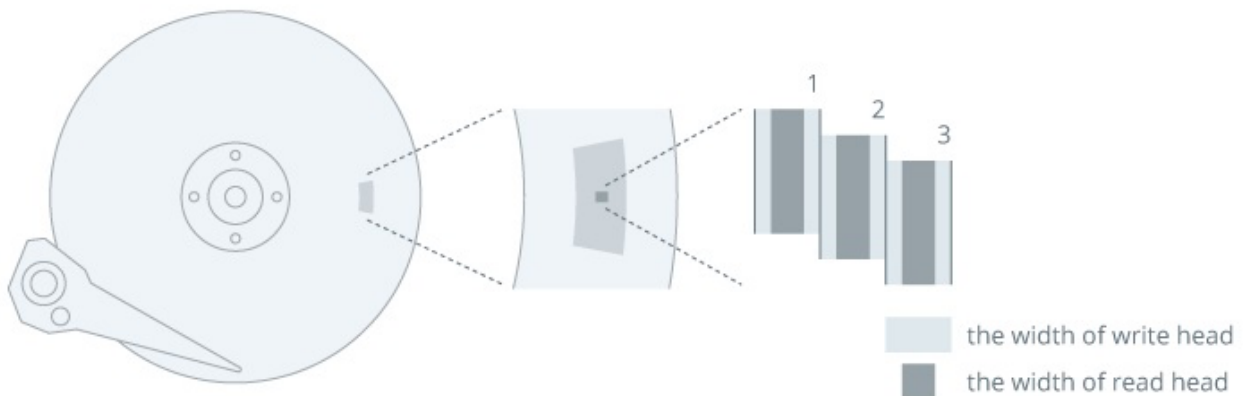
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25 <sup>3</sup> Kanawat Senanan, *How do Hard Drives Work?*, TED-ED, <https://www.youtube.com/watch?v=wteUW2sL7bc> (last accessed June 11, 2020); How a Hard  
 26 Disk Drive Works, SEAGATE, <https://www.youtube.com/watch?v=NtPc0jI21i0> (last accessed  
 Aug. 10, 2020).

27 <sup>4</sup> *What are PMR and SMR Hard Disk Drives?*, SYNOLOGY, [https://www.synology.com/en-](https://www.synology.com/en-us/knowledgebase/DSM/tutorial/Storage/PMR_SMR_hard_disk_drives)  
 28 [us/knowledgebase/DSM/tutorial/Storage/PMR\\_SMR\\_hard\\_disk\\_drives](https://www.synology.com/en-us/knowledgebase/DSM/tutorial/Storage/PMR_SMR_hard_disk_drives) (last accessed June 11,  
 2020).



side-by-side, without overlapping.”<sup>5</sup>



28. CMR HDDs “deliver excellent random-access performance,” and are as such “widely used not only in PCs but also for online storage applications.”<sup>6</sup> CMR is used in most standard HDDs.<sup>7</sup>

29. Another, more recently developed method of reading and writing data is Shingled Magnetic Recording (“SMR”). SMR technology was developed to make possible lower-cost, lower-performing, but high-capacity drives.

30. “Rather than writing each magnetic track without overlapping, SMR overlaps each new track with part of the previously written track, much like shingles on a roof. By overlapping the tracks, write heads become thinner, thus expanding areal density.”<sup>8</sup>

<sup>5</sup> *Id.*

<sup>6</sup> Shimomura Kazuhito, *Shingled Magnetic Recording Technologies for Large-Capacity Hard Disk Drives*, 1 TOSHIBA REVIEW GLOBAL EDITION 33, 33 (2015), [https://www.toshiba.co.jp/tech/review/en/01\\_02/pdf/a08.pdf](https://www.toshiba.co.jp/tech/review/en/01_02/pdf/a08.pdf) (last accessed June 11, 2020).

<sup>7</sup> Joel Hruska, *Western Digital, Seagate Are Shipping Slow SMR Drives Without Informing Customers: Reports*, EXTREME TECH, Apr. 14, 2020, <https://www.extremetech.com/computing/309389-western-digital-seagate-reportedly-shipping-slow-smr-drives-without-informing-customers> (last accessed June 11, 2020).

<sup>8</sup> *What are PMR and SMR Hard Disk Drives?*, SYNOLOGY.



31. SMR thus allows for low-cost, high-capacity HDDs.<sup>9</sup> “However, if new (or modified) data needs to be placed near existing data, the drive will have to overwrite the neighboring shingled tracks ... That makes [SMR] drive[s] significantly slower at writing tasks, especially for random writes.”<sup>10</sup>

32. In addition, the design of SMR drives makes permanent data loss more likely. Whereas data engineers can rebuild certain components on other storage types and recover lost data, the SMR data translators cannot be repaired. This can result in permanent data loss if the translators are damaged.<sup>11</sup>

33. In short, while SMR HDDs boast high areal density, they are at a disadvantage in nearly every other category.<sup>12</sup> For these reasons, SMR HDDs are typically only used “for cold data storage, like archives and backups, because of their poor performance,”<sup>13</sup> and are

<sup>9</sup> *Shingled Magnetic Recording Technologies for Large-Capacity Hard Disk Drives*, 1 TOSHIBA REVIEW GLOBAL EDITION at 33.

<sup>10</sup> Paul Alcorn, *Western Digital Fesses Up: Some Red HDDs Use Slow SMR Tech Without Disclosure*, TOM’S HARDWARE, Apr. 14, 2020, <https://www.tomshardware.com/news/wd-fesses-up-some-red-hdds-use-slow-smr-tech> (last accessed Aug. 10, 2020).

<sup>11</sup> David Blizzard, *WD Shingled Magnetic Recording – New Road Blocks For Data Recovery Pros*, BLIZZARD DATA RECOVERY, <https://www.blizzardddr.com/wd-smr-translation-new-road-blocks/> (last accessed Aug. 10, 2020).

<sup>12</sup> Joel Hruska, *Western Digital, Seagate Are Shipping Slow SMR Drives Without Informing Customers: Reports*.

<sup>13</sup> Paul Alcorn, *Western Digital Fesses Up: Some Red HDDs Use Slow SMR Tech Without Disclosure*.

typically marked as “archival” to designate the use of the technology.<sup>14</sup> SMR HDDs are not recommended for use by the ordinary consumer.<sup>15</sup>

34. The use of SMR technology is particularly problematic for NAS systems and RAID arrays. “A NAS system is a storage device connected to a network that allows storage and retrieval of data from a centralized location for authorized network users and heterogeneous clients.” In other words, a NAS system “is like having a private cloud in the office,” except that all files are stored locally on several small hard drives instead of remotely on someone else’s server.<sup>16</sup>

35. A NAS system has a number of advantages to typical cloud storage. For one, all files are stored locally while still being accessible remotely, instead of on someone else’s server. Further, setting up a NAS system is a one-time payment (paying once per HDD), as opposed to paying monthly for cloud storage. NAS systems also offer faster performance because files do not need to be uploaded to or downloaded from the cloud; they can be accessed instantly.<sup>17</sup>

36. NAS systems also offer better data protection through “redundancy.” Redundancy “means that one hard drive can mirror another inside the NAS, so whatever [is] store[d] on one drive, it is simultaneously stored on the other, like a live instant back-up. This means that if one drive does fail, then [a consumer] can carry on as if nothing happened” because the data is stored on another HDD in the NAS system, and the consumer can simply get a new HDD to replace the failed one.<sup>18</sup>

37. NAS devices have become increasingly popular for both home and small

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<sup>14</sup> Jim Salter, *Buyer Beware—That 2TB-6TB “NAS” Drive You’ve Been Eyeing Might be SMR*, ARS TECHNICA, Apr. 17, 2020, <https://arstechnica.com/gadgets/2020/04/caveat-emptor-smr-disks-are-being-submarined-into-unexpected-channels/> (last accessed Aug. 10, 2020).

<sup>15</sup> *Id.*

<sup>16</sup> *What is NAS (Network Attached Storage) and Why is NAS Important for Small Businesses?*, SEAGATE, <https://www.seagate.com/tech-insights/what-is-nas-master-ti/> (last accessed Aug. 10, 2020).

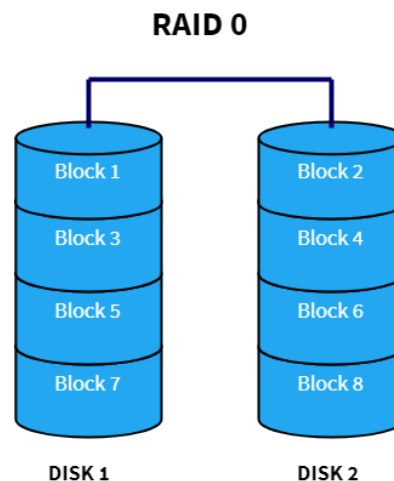
<sup>17</sup> STILL CONFUSED ABOUT NAS? NAS EXPLAINED IN 3 MINUTES, <https://www.youtube.com/watch?v=k13sQxybqiA> (last accessed Aug. 10, 2020) (Western Digital promotional video).

<sup>18</sup> *Id.*

business use, as the use of digital data has exploded over the years including digital files, photographs, videos, and databases which have required ever-increasing storage capacity which NAS devices (with their grouping of hard drives together into a single large centralized datastore) are able to provide along with data redundancy.

38. A RAID array “combine[s] multiple, less-expensive drives into a single, higher-capacity and/or faster volume” that “facilitate[s] redundancy.”<sup>19</sup> A RAID array is not the same technology as a NAS system, but the two overlap. A NAS system is often made up of HDDs configured into a RAID array, and a RAID array allows a NAS system to offer redundancy and high performance.<sup>20</sup>

39. There are several common types of RAID arrays. RAID 0 focuses on high performance and employs a process known as “striping.” Striping distributes data across multiple drives (for example, block A goes to and from drive 1, block B goes to and from drive 2), which permits increased write and read speeds.”<sup>21</sup> In other words, “when the system wants to read that data, it can do so simultaneously from all the disks and join them together to reconstruct the entire data stream.”<sup>22</sup>



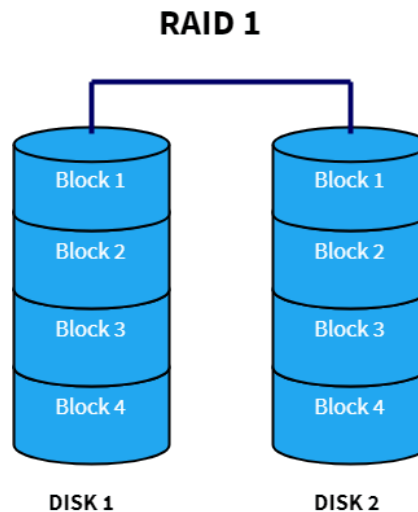
<sup>19</sup> Jon L. Jacobi, *RAID Made Easy*, PCWORLD, Apr. 19, 2012, <https://www.pcwORLD.com/article/194360/raid-made-easy.html> (last accessed Aug. 10, 2020).

<sup>20</sup> Pedro Hernandez, *NAS vs. Raid: How They Differ and Overlap*, ENTERPRISE STORAGE, May 4, 2018, <https://www.enterprisestorageforum.com/storage-networking/raid-vs-nas-how-they-differ-and-overlap.html> (last accessed Aug. 10, 2020).

<sup>21</sup> Jon L. Jacobi, *RAID Made Easy*.

<sup>22</sup> Anirban Das, *RAID Levels 0, 1, 4, 5, 6, 10 Explained*, Boolean World, <https://www.booleanworld.com/raid-levels-explained/> (last accessed Aug. 10, 2020).

40. RAID 1 uses the concept of “data mirroring,” which clones data “to an identical set of disks so that if one of the disks fails, the other can be used. It also improves read performance since different blocks can be accessed from all the disks simultaneously.”<sup>23</sup> This allows for the aforementioned “redundancy.” If a new drive is added to the RAID array, data can be replicated from the old HDDs to the new one in a process called “resilvering.”

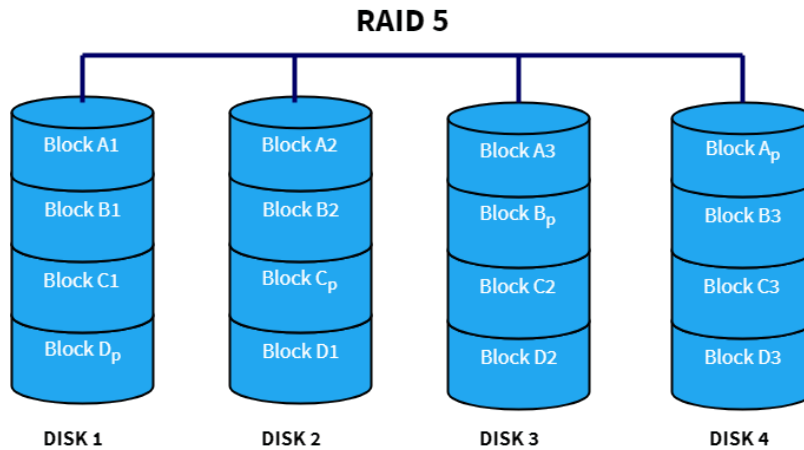


41. Finally, RAID 5 combines “the speeds of RAID 0 and data protection of RAID 1 into one configuration and is by far the most commonly used RAID level” in businesses and NAS systems.<sup>24</sup> “RAID 5 writes data to and reads from multiple disks, and it distributes parity data across all the disks in the array. Parity data is a smaller amount of data derived mathematically from a larger set that can accurately describe that larger amount of data, and thus serves to restore it. Since parity information is distributed across all the drives, any drive can fail without causing the entire array to fail.”<sup>25</sup>

<sup>23</sup> *Id.*

<sup>24</sup> Nathaniel Cooper, *The Best RAID for NAS – Networking, Storage and Overlap*, PROMAX MEDIA TECHNOLOGY SOLUTIONS, Sept. 25, 2019, <https://www.promax.com/blog/best-raid-for-nas-storage-overlap> (last accessed Aug. 10, 2020).

<sup>25</sup> Jon L. Jacobi, *RAID Made Easy*.



42. Hard drives which are designed and built for NAS and RAID must have certain characteristics. In particular, such hard drives must be able to handle continuous and sustained writes and heavy random writes, which occur often during the RAID rebuilding process (also called “resilvering”) when a failed hard drive in a RAID array is replaced with a new drive and the data is redistributed across the replacement drive and the other drives. Continuous and heavy writes also occur when the storage capacity of a RAID array is expanded by adding hard drives, which requires a similar resilvering process where the data is redistributed and spread across all the drives.

43. Continuous and sustained writes and heavy random writes also occur during RAID “scrubbing,” which is a standard and recommended periodic data integrity check where all the data on the hard drive is checked for errors and consistency and automatically corrected. NAS manufacturers generally recommend (and often set their devices to automatically perform) RAID scrubbing at least once a month to maintain system health and to prevent data loss.

44. Hard drives designed and built for NAS and RAID also are expected to have reliable and fast random-write performance in general, and to be able to handle continuous random writes. NAS units and RAID arrays are often utilized to house databases and database files, iSCSI datastores, software-based virtual machines, large numbers of small files written and read from multiple computers on a network, and backup files, all of which often require

heavy and simultaneous random writes to the hard drives.

45. The bottom line is that NAS systems and RAID arrays focus on providing high performance and data protection. Accordingly, an HDD marketed for NAS systems (and, by extension, use in a RAID array) should offer the same traits. For this reason, an HDD that uses SMR technology is inappropriate for use in a NAS system or a RAID array because SMR does not offer high performance or data protection.

46. Many have noted the ill effects of using an SMR drive in a NAS system or RAID array. SMR HDDs take longer to rebuild RAID arrays and have slower random write speeds than CMR HDDs.<sup>26</sup> Further, if an SMR drive is used in a RAID array that otherwise uses CMR technology, “the overall read/write performance may be affected by the SMR ones during the overwriting tasks.”<sup>27</sup> Finally, both Seagate and Toshiba (the two other largest HDD manufacturers) have publicly stated that they do not recommend SMR for NAS and that they do not and will not offer NAS-labeled hard drives with SMR technology due to performance deficiencies.<sup>28</sup>

## II. WESTERN DIGITAL’S FRAUDULENT REPRESENTATIONS AND OMISSIONS

### A. Western Digital Begins Secretly Manufacturing the WD Red NAS Drives With SMR Technology

47. Western Digital (“WDC”) is one of the largest manufacturers of hard drives in the world. Western Digital manufactures two different types of hard drives: traditional large-capacity spinning disk mechanical hard drives, and more modern but smaller-capacity solid-state flash storage drives (often also called hard drives) which have no moving parts. This

<sup>26</sup> Jim Salter, *We Put Western Digital’s Dreaded SMR Red Drive to the Test*, ARSTECHNICA, June 5, 2020, <https://arstechnica.com/gadgets/2020/06/western-digital-s-smr-disks-arent-great-but-theyre-not-garbage/> (last accessed Aug. 10, 2020).

<sup>27</sup> *What are PMR and SMR Hard Disk Drives?*, SYNOLOGY.

<sup>28</sup> See Jim Salter, *Seagate Says Network Attached Storage and SMR Don’t Mix*, ARSTECHNICA, Apr. 21, 2020, <https://arstechnica.com/information-technology/2020/04/seagate-says-network-attached-storage-and-smr-dont-mix/> (last accessed Aug. 10, 2020) (quoting Seagate Corporate Communications lead Greg Belloni); see “Use of Shingled Magnetic Recording (SMR) technology in Toshiba Consumer Hard Drives,” *Toshiba* website, April 28, 2020, available at <https://toshiba.semicon-storage.com/ap-en/company/news/news-topics/2020/04/storage-20200428-1.html>.



lawsuit concerns the traditional large capacity spinning disk mechanical hard drives, and any reference to “hard drives” herein means traditional spinning disk mechanical hard drives.

48. Western Digital markets its hard drives series by color. In 2012, WDC released its WD Red series NAS hard drives, which were specifically designed for NAS (Network-Attached Storage) systems and for RAID (Redundant Array of Independent Disks) environments.

49. For nearly a decade, the WD Red NAS Drives enjoyed a strong reputation as best-in-class for use in NAS devices and RAID storage arrays.

50. WDC today continues to advertise its WD Red NAS hard drives as **“Built for NAS compatibility”** and **“Designed for RAID environments.”** WDC advertises WD Red NAS hard drives as **“specifically designed for use in NAS systems with up to 8 bays”** and appropriate for **“small and home office NAS systems in a 24x7 environment.”**

51. WDC even includes “NAS” in the name of these hard drives, and prints “NAS” on the hard drives themselves:



52. Until 2018, WDC’s advertising rang true, as all of its WD Red NAS Drives utilized industry-standard CMR technology, rightfully earn a reputation for reliability and being



1 “purpose-built” and well-suited for NAS and RAID environments.

2 53. However, upon information and belief, in or about 2018, WDC secretly swapped  
3 out the industry-standard CMR technology in the WD Red NAS hard drives, and replaced it  
4 with inappropriate—and cheaper—hard drive technology called DM-SMR (Drive-Managed  
5 Shingled Magnetic Recording, or drive-managed SMR).

6 54. WDC silently switched the recording technology in these drives to DM-SMR for  
7 one reason: to reduce its costs and increase its profits. SMR technology enables WDC to fit  
8 25% more data onto the same-size disk platters, thus significantly reducing its costs to produce  
9 the drives.

10 55. Critically, when WDC downgraded its hard drives to SMR technology, WDC  
11 did not change any of its advertising or representations regarding the hard drives being  
12 “purpose-built” and suitable for NAS and RAID. WDC did not make any disclosure  
13 whatsoever of its use of SMR technology in the hard drives. WDC advertising and  
14 specifications, which were also utilized by WDC’s resellers in their ads and product web pages  
15 for the hard drives, continued to make the exact same representations that the WD Red NAS  
16 hard drives were specifically intended and appropriate for NAS and RAID.

17 56. WDC kept the switch to this inappropriate SMR technology a secret so that it  
18 could continue to charge the same price WDC previously charged for its previous generation  
19 CMR drives, thereby increasing its profits. WDC intentionally did not disclose its use of SMR  
20 technology in the new drives anywhere whatsoever. WDC did not mention the SMR  
21 technology in its advertising, in its hard drive documentation, in the hard drive product  
22 datasheets, or in the labeling on the hard drive itself.

23 57. WDC even went to great lengths to hide the existence of the SMR technology,  
24 through drive-managed tricks which cause the drives to be recognized by NAS and RAID  
25 systems as if they are traditional—but unusually poor performing—CMR drives. WDC  
26 utilized the trick of a small CMR disk cache zone to function as a temporary storage space.  
27 Data writes are first temporarily stored on this staging disk area (the small CMR cache zone).  
28 Then, when the disk is idle (i.e., when there is no writing being made to it), the hard drive

1 rearranges the data in the background, moving the data that was temporarily saved in the CMR  
2 cache over to the main SMR part of the drive. This data rearranging and clean-up process is  
3 often referred to as the “garbage collection” process.

4 58. However, after continuous heavy writes, the CMR cache layer becomes full, and  
5 the drive slows down dramatically—it essentially “chokes” and stops the flow of data while it  
6 flushes out the CMR cache and tries to catch up writing to the much slower main SMR hard  
7 disk. This is especially problematic and dangerous when the hard drive has been set up in a  
8 NAS as part of a RAID array. In that case, the choking hard drive can report “timeouts” or loss  
9 of connectivity to the NAS, which logically assumes the hard disk has failed and then kicks the  
10 drive out of the RAID array, which can cause catastrophic data loss.

11 59. Several of these technology enthusiasts noted that the official WDC spec sheet  
12 for these \*EFAX hard drives indicated the EFAX drives should have better performance than  
13 the prior version of the drives (which contained the letters “EFRX”). The EFAX drives were  
14 listed with a faster “interface transfer rate” (180 MB/s versus as low as 150 MB/s), and with  
15 four times as much DRAM cache (256MB versus 64MB). The WDC product data sheet gave  
16 zero indication whatsoever that the EFAX drives contained SMR technology (as compared to  
17 the prior EFRX versions of the “same” drives which contained the standard CMR technology).

18 60. When WDC downgraded the technology in its WD Red NAS hard drives to  
19 SMR technology, it did so secretly, without telling a soul. Based on information and belief,  
20 WDC did not inform the NAS manufacturers—who had tested and certified the previous  
21 generation CMR versions of the hard drives—that WDC had replaced the insides of these  
22 identically-labeled drives with cheaper and poor-performing SMR technology. Based on  
23 information and belief, WDC likewise did not inform its resellers, such as Amazon.com and  
24 Newegg.com, that it had downgraded many of its WD Red NAS hard drive models with  
25 inferior and cheaper SMR technology.

26 61. Based on information and belief, WDC customer support staff were instructed to  
27 refuse to acknowledge that the new WD Red NAS hard drives now utilized SMR technology.  
28 One purchaser reported WDC’s response when he contacted WDC customer support to ask if

the drive utilized SMR versus CMR technology: “Western Digital support has gotten back to me. They have advised me that they are not providing that information so they are unable to tell me if the drive is SMR or PMR [PMR is another term used for CMR]. LOL. He said that my question would have to be escalated to a higher team to see if they can obtain that info for me.” Then, “the higher team contacted me back and informed me that the information I requested about whether or not the WD60EFAX was a SMR or PMR would not be provided to me. They said that information is not disclosed to consumers. LOL. WOW.”<sup>29</sup>

62. Based on information and belief, when consumers contacted WDC to complain about the poor performance of its (SMR-technology) WD Red NAS hard drives in NAS and RAID environments, WDC as a matter of policy continued to insist that the hard drives were suitable for those environments, failed to disclose that the drives utilized (inappropriate) SMR technology, and blamed “user error” or the user’s other equipment for the poor performance.

63. As late as March 2020, WDC continued to publicly deny that the hard drives contained SMR technology. For instance, Yemi Elegunde, an enterprise and channel sales manager for Western Digital UK, claimed on March 30, 2020:

“The only SMR drive that Western Digital will have in production is our 20TB hard enterprise hard drives and even these will not be rolled out into the channel. All of our current range of hard drives are based on CMR Conventional Magnetic Recording.”<sup>30</sup>

#### **B. Western Digital Is Forced to Come Clean About Its Fraudulent Representations And Omissions**

64. Starting around March 2019, various purchasers of WD Red NAS hard drives began reporting on online message boards that they were experiencing poor write performance and consistent failures during RAID resilvering.<sup>31</sup>

<sup>29</sup> See Synology, Inc. Community post, July 21, 2019, available at <https://community.synology.com/enu/forum/1/post/127228> (emphasis added).

<sup>30</sup> Jim Salter, *Buyer Beware—That 2TB-6TB “NAS” Drive You’ve Been Eyeing Might be SMR* (emphasis added).

<sup>31</sup> Patrick Kennedy, *WD Red DM-SMR Update: 3 Vendors Bail and WD Knew of ZFS Issues*, SERVE THE HOME, June 14, 2020, <https://www.servethehome.com/wd-red-dm-smr-update-3-vendors-bail-and-wd-knew-of-zfs-issues/> (last accessed Aug. 10, 2020).

1           65. For example, one user stated: “[W]hen I was moving data from one drive to  
2 another, several terabytes worth, it literally took most of a week. The drive would fill 30GB,  
3 then stop and basically lock up the OS.”<sup>32</sup>

4           66. Another user stated: “[T]he latest iteration of WD REDS [are] unable to be used  
5 for rebuilding RAID or RAIDZ sets: They rebuild for a while (1-2 hours), then throw errors  
6 and get kicked out of the set.”<sup>33</sup>

7           67. Another user posted on a Synology (a leading NAS manufacturer) user forum  
8 that he was unable to add a new WD Red NAS 6TB drive to a RAID setup containing three  
9 older WD Red NAS 6TB drives. When the user added the new WD Red NAS drive, the  
10 resilvering process took over three days and then failed.<sup>34</sup>

11           68. Many purchasers reported being unable to use the hard drives in their NAS  
12 systems, and that the hard drives kept getting kicked out of their RAID arrays. One user stated:  
13 “Attempting to replace drives in my existing array resulted in new WD-RED WD40EFAX  
14 drives (multiple units) throwing HARD errors (IDNF - Sector ID not found) and being kicked  
15 out of the array. That’s apart from them pausing for 30-180 seconds at a time occasionally  
16 whilst they rebuild their internals, or the painfully slow random-write speeds when you throw  
17 more than about 2GB at a time at them.”<sup>35</sup>

18           69. Another user posted: “I got recently bit by WD40EFAX ... When I tried to  
19 replace one of the failed WD Red disk in my vdev I started getting bunch of errors... I replaced  
20  
21

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22 <sup>32</sup> See Jim Salter, “Buyer beware—that 2TB-6TB ‘NAS’ drive you’ve been eyeing might be  
23 SMR,” *Ars Technica*, April 17, 2020, available at  
<https://arstechnica.com/gadgets/2020/04/caveat-emptor-smr-disks-are-being-submarined-into-unexpected-channels/>.

24 <sup>33</sup> See Chris Mellor, “Western Digital admits 2TB-6TB WD Red NAS drives use shingled  
25 magnetic recording,” *Blocks & Files*, April 14, 2020, available at  
<https://blocksandfiles.com/2020/04/14/wd-red-nas-drives-shingled-magnetic-recording/>.

26 <sup>34</sup> See Synology, Inc. Community post, July 21, 2019, available at  
<https://community.synology.com/enu/forum/1/post/127228>.

27 <sup>35</sup> See “Disguised SMR drives – the OFFICIAL Western Digital Response,” *reddit*, available at  
28 [https://np.reddit.com/r/DataHoarder/comments/fyhzi9/disguised\\_smr\\_drives\\_the\\_official\\_western\\_digital/](https://np.reddit.com/r/DataHoarder/comments/fyhzi9/disguised_smr_drives_the_official_western_digital/).

1 that with WD purple and haven't had any problems so far.”<sup>36</sup>

2 70. Some hard drive technology enthusiasts noticed that the reported problems  
3 appeared to affect WD Red NAS drives 6TB or below in size, with a SKU containing the letters  
4 “EFAX.”

5 71. Consumers had no way to know or learn that the WD Red NAS Drives utilized  
6 SMR technology. Only Western Digital knew definitively that the WD Red NAS Drives used  
7 SMR technology.

8 72. Nonetheless, some of the more technologically-skilled purchasers who were  
9 experiencing these problems surmised that the drives may in fact be SMR drives on the inside,  
10 because the drives' poor write performance, RAID and NAS incompatibility and their data-  
11 choking behavior were consistent with the known limitations of SMR technology.

12 73. In April 2020, Chris Mellor, a journalist at a leading storage technology website,  
13 *Blocks & Files*, began investigating this possible undisclosed use of SMR technology in WD  
14 Red NAS hard drives after an information technology expert brought his suspicions to Mellor's  
15 attention.

16 74. As stated in the *Blocks & Files* article published April 14, 2020: “Alan Brown, a  
17 network manager at UCL Mullard Space Science laboratory, the UK's largest university-based  
18 space research group, told us about his problems adding a new WD Red NAS drive to a RAID  
19 array at his home. Although it was sold as a RAID drive, the device ‘keep[s] getting kicked out  
20 of RAID arrays due to errors during resilvering,’ he said.” Mr. Brown suspected the drive was  
21 secretly utilizing SMR technology, and his testing seemed to confirm his hypothesis. Mr.  
22 Brown told the website that the WD Red NAS drive's poor performance had “been a hot-button  
23 issue in the datahoarder Reddit for over a year. People are getting pretty peeved by it because  
24 SMR drives have ROTTEN performance for random write usage.”<sup>37</sup>

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26 <sup>36</sup> *Ibid.*

27 <sup>37</sup> See Chris Mellor, “Western Digital admits 2TB-6TB WD Red NAS drives use shingled  
28 magnetic recording,” *Blocks & Files*, April 14, 2020, available at  
<https://blocksandfiles.com/2020/04/14/wd-red-nas-drives-shingled-magnetic-recording/>.

75. When *Blocks & Files* contacted WDC and pointedly asked WDC whether WD Red NAS drives used SMR technology, WDC was finally forced to acknowledge the truth.

76. WDC stated on the record to *Blocks & Files* (in the article published April 14, 2020):

Currently, Western Digital's WD Red 2TB-6TB drives are device-managed SMR (DMSMR)... You are correct that we do not specify recording technology in our WD Red HDD documentation. We strive to make the experience for our NAS customers seamless, and recording technology typically does not impact small business/home NAS-based use cases. In device-managed SMR HDDs, the drive does its internal data management during idle times. In a typical small business/home NAS environment, workloads tend to be bursty in nature, leaving sufficient idle time for garbage collection and other maintenance operations.<sup>38</sup>

77. On April 20, 2020, six days after the *Blocks & Files* article was published, as the fiasco and condemnation continued to snowball, WDC posted a public statement about the matter on a blog post on its website.<sup>39</sup> In the post, WDC acknowledged that "some" of its WD Red NAS hard drives utilized SMR technology—but WDC still did not identify which particular WD Red NAS hard drive SKUs used SMR.

78. Finally, on April 23, 2020, Western Digital released a chart showing which specific WD Red NAS Drives use SMR technology<sup>40</sup>:

### WD Internal Client SMR HDDs

Currently shipping

WD Red™ 3.5"		WD Blue™ 3.5"		WD Blue™ 2.5"		WD Black™ 2.5"	
							
2TB	WD20EFAX	2TB	WD20EZAZ	1TB	WD10SPZX	1TB	WD10SPSX
3TB	WD30EFAX	6TB	WD60EZAZ	2TB	WD20SPZX		
4TB	WD40EFAX						
6TB	WD60EFAX						

NOTE: All other capacity points use CMR recording technology. (Updated 4/22/2020)

Western Digital

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4/22/20

<sup>38</sup> *Id.*

<sup>39</sup> See "On WD Red NAS Drives," *Western Digital BLOG*, available at <https://blog.westerndigital.com/wd-red-nas-drives/>.

<sup>40</sup> Paul Alcorn, *WD Sets the Record Straight: Lists All Drives that Use Slower SMR Tech*, TOM'S HARDWARE, Apr. 23, 2020, <https://www.tomshardware.com/news/wd-lists-all-drives-slower-smr-techNOLOGY> (last accessed Aug. 10, 2020).



**C. Consumers Are Harmed By Western Digital's Fraudulent Representations And Omissions**

79. Needless to say, Western Digital's divulgence that it had been secretly using SMR technology in its WD Red NAS Drives did not go over well with consumers. Consumers excoriated Western Digital for sneaking SMR technology into its WD Red NAS Drives, and for the myriad problems such deception has caused consumers:

- "WD Red are no longer generally NAS drives, they are 'Archival Drives' ... A consumer should be able to trust a drive is suitable for the purpose it's marketed. They should drop the label NAS or be sued."<sup>41</sup>
- "Have they completely lost their mind now. Selling SMR drives for NAS usage. And there was 0 mention, that they are SMR drives, not even in their data sheets. Those lying misleading data destroying monsters at WD."<sup>42</sup>
- "[A] NAS drive with SMR is most certainly not fit for purpose. SMR should not have been put in these drives, period."<sup>43</sup>
- "'WD Red NAS – False Advertising'"<sup>44</sup>

80. Worse, consumers have been actively harmed by overpaying for the inferior WD Red NAS Drives made with SMR technology that are "unfit for the purpose for which they are marketed."<sup>45z</sup>

81. According to recent testing by technology websites *Serve The Home* and *Ars Technica*, WD Red NAS SMR-technology drives at best offer lousy performance compared to CMR-technology drives, and at worst the drives fall flat on their face so badly that data loss

<sup>41</sup> FYI – WESTERN DIGITAL SMR HDDS, REDDIT, [https://www.reddit.com/r/DataHoarder/comments/g7m542/fyi\\_western\\_digital\\_smr\\_hdds/](https://www.reddit.com/r/DataHoarder/comments/g7m542/fyi_western_digital_smr_hdds/) (last accessed June 15, 2020).

<sup>42</sup> *Id.*

<sup>43</sup> WD SUPPORT HAS REFUSED TO REPLACE MY WD RED SMR 6TB DRIVES WITH NON-SMR EQUIVALENTS, REDDIT, [https://www.reddit.com/r/DataHoarder/comments/g7k5qv/wd\\_support\\_has\\_refused\\_to\\_replace\\_my\\_wd\\_red\\_smr/](https://www.reddit.com/r/DataHoarder/comments/g7k5qv/wd_support_has_refused_to_replace_my_wd_red_smr/) (last accessed Aug. 10, 2020).

<sup>44</sup> *Id.*

<sup>45</sup> See Chris Mellor, "Shingled hard drives have non-shingled zones for caching writes," *Blocks & Files*, April 15, 2020, available at <https://blocksandfiles.com/2020/04/15/shingled-drives-have-non-shingled-zones-for-caching-writes/>.

1 may result.<sup>46</sup> The SMR versions of the WD Red NAS drives offer between 70% to 1,000%  
 2 slower write speed and read/write latency compared to CMR drives (including compared to the  
 3 prior CMR versions of the same capacity WD Red NAS drives).

4 82. Using an SMR WD Red NAS drive also results in increased risk of data loss  
 5 during RAID rebuilds due to greatly increased rebuild times. For example, *Serve The Home*  
 6 found RAID rebuilding or RAID expansion (also referred to as “resilvering”) times with an  
 7 SMR WD Red NAS drive could take nearly 16 times longer than with a CMR drive. In Will  
 8 Taillac’s testing for *Serve The Home*, all three of the tested traditional 4TB CMR drives took  
 9 less than 17 hours to complete the resilvering process (in fact, the prior generation CMR  
 10 version of the 4TB WD Red NAS was the quickest of the CMR drives at 14.6 hours), versus  
 11 the “new” SMR version of the 4TB WD Red NAS which took 229.7 hours (over 9 days) to  
 12 complete the resilvering process—i.e., nearly 16x longer.

13 83. This massively increased resilvering time is particularly dangerous and  
 14 unacceptable in a RAID array because a resilvering process is typically performed to replace a  
 15 failed hard drive; and often (e.g., in a RAID 5 array) if just one additional hard drive fails,  
 16 catastrophic data loss can result. The resilvering process is extremely stressful on hard drives  
 17 because all the data is being redistributed and re-written among the drives in the array. Because  
 18 SMR drives can increase the required resilvering time by an order of magnitude (from hours to  
 19 days) as compared to CMR drives, the likelihood of another drive failing during that extended  
 20 resilvering process—and thus the likelihood of catastrophic data loss—likewise increases  
 21 substantially.

22 84. Even the read performance of SMR WD Red NAS drives can be poor and  
 23 unacceptable, where the increased latency due to the SMR technology causes freezes and stops  
 24 and starts in opening and viewing files and data. As technology journalist Jim Salter explained  
 25

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26 <sup>46</sup> See Will Taillac, “WD Red SMR vs CMR Tested Avoid Red SMR,” *Serve The Home*, May  
 27 28, 2020, available at <https://www.servethehome.com/wd-red-smr-vs-cmr-tested-avoid-red-smr/>;  
 28 see Jim Salter, “We put Western Digital’s dreaded SMR Red drive to the test,” *Arstechnica*, June 5, 2020, available at <https://arstechnica.com/gadgets/2020/06/western-digital-smr-disks-arent-great-but-theyre-not-garbage/>.



1 based on his testing of SMR WD Red NAS drives for *Ars Technica*, “for a desktop user,  
 2 someone who wants things to *happen* when they click buttons and drag things around, the Red  
 3 can occasionally provide a truly frustrating experience during what should be a very, very easy  
 4 workload, even for a conventional drive.”<sup>47</sup>

5 85. Remarkably, and unfortunately, even adding just one of these inferior SMR WD  
 6 Red NAS hard drives to an existing storage array (which otherwise contains traditional, good-  
 7 performing CMR hard drives) can poison the entire drive array, causing the entire array to  
 8 suffer this poor performance and greater risk of data loss. RAID arrays are often only as good  
 9 as their weakest link.<sup>48</sup>

10 86. Since WDC’s scheme was brought to light, three of the leading NAS device  
 11 manufacturers—Synology, Inc., iXsystems, and Drobo, Inc.—have blacklisted WD Red NAS  
 12 drives with SMR technology and removed them from their hardware compatibility lists because  
 13 the NAS manufacturers have deemed the drives unfit and inappropriate for use in their NAS  
 14 devices. Notably, this blacklisting of WD Red NAS drives by major NAS manufacturers  
 15 contradicts WDC’s defensive April 20, 2020 statement on its public blog that all of the WD  
 16 Red NAS drives, including those with SMR technology, have been “rigorously tested” “and  
 17 have been validated by the major NAS providers.”<sup>49</sup> The blacklisting likewise contradicts  
 18 WDC’s continued advertising that SMR WD Red NAS drives are “**Built for NAS**  
 19 **compatibility.**” And it contradicts WDC’s advertising on its WD Red NAS product datasheet  
 20 that: “Simply put, a WD Red drive is one of the most compatible drives available for NAS  
 21 enclosures. But don’t take our word for it. WD Red drives are a reflection of extensive NAS  
 22 partner technology engagement and compatibility-testing resulting in a leading compatibility  
 23

24 <sup>47</sup> See responsive comments by Jim Salter to his article, “We put Western Digital’s dreaded  
 25 SMR Red drive to the test,” *Ars Technica*, June 5, 2020, available at  
<https://arstechnica.com/gadgets/2020/06/western-digitals-smr-disks-arent-great-but-theyre-not-garbage/> (emphasis in original).

26 <sup>48</sup> E.g., see “What are PMR and SMR Hard Disk Drives?”, *Synology* website, available at  
 27 [https://www.synology.com/en-us/knowledgebase/DSM/tutorial/Storage/PMR\\_SMR\\_hard\\_disk\\_drives](https://www.synology.com/en-us/knowledgebase/DSM/tutorial/Storage/PMR_SMR_hard_disk_drives).

28 <sup>49</sup> See “On WD Red NAS Drives,” *Western Digital BLOG*, available at  
<https://blog.westerndigital.com/wd-red-nas-drives/>.

list for NAS systems.”<sup>50</sup>

87. In fact, rather than having practiced “extensive NAS partner technology engagement and compatibility-testing,” WDC had instead kept its NAS manufacturer partners completely in the dark about WDC’s secret downgrade of its Red NAS drives to the inferior SMR technology. The NAS manufacturers had reasonably assumed that their previous testing and certification of WD Red NAS drives for use in their devices was still valid—because they had no idea, and no warning from WDC, that the insides of the drives had been suddenly and secretly swapped out for cheaper and inferior SMR technology. After all, for over a decade, WDC—like every other NAS hard drive manufacturer—had previously and exclusively utilized industry-standard CMR technology in its WD Red NAS drives. But once the SMR scandal publicly unfolded and the NAS manufacturers learned the truth, the NAS manufacturers re-tested the drives. The test results showed that the SMR versions of the drives were unfit for NAS and RAID usage. NAS manufacturers like Synology, Inc.<sup>51</sup>, iXsystems<sup>52</sup> and Drobo, Inc., then blacklisted the drives as incompatible with their devices.

88. Further, even though SMR HDDs are cheaper to produce, Western Digital did

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<sup>50</sup> See official “Data Sheet” for WD Red NAS drives, *Western Digital* website, December 2019, available at [https://documents.westerndigital.com/content/dam/doc-library/en\\_us/assets/public/western-digital/product/internal-drives/wd-red-hdd/data-sheet-western-digital-wd-red-hdd-2879-800002.pdf](https://documents.westerndigital.com/content/dam/doc-library/en_us/assets/public/western-digital/product/internal-drives/wd-red-hdd/data-sheet-western-digital-wd-red-hdd-2879-800002.pdf).

<sup>51</sup> See “Synology Products Compatibility List,” *Synology* website, available at [https://www.synology.com/en-us/compatibility?search\\_by=category&category=hdds\\_no\\_ssd\\_trim&p=1](https://www.synology.com/en-us/compatibility?search_by=category&category=hdds_no_ssd_trim&p=1).

<sup>52</sup> iXsystems is also the creator of the very popular open source FreeNAS storage software which utilizes the ZFS filesystem, and which is utilized by many NAS manufacturers and tens of thousands of their customers and individuals. The ZFS filesystem was designed to use small blocksize random writes in virtually all usage scenarios, including disk array resilvering—which is near-fatal to SMR drives. iXsystems has also confirmed reports (and has notified WDC) of an additional problem that under heavy write loads and/or resilvering the WD Red NAS drives can return Sector ID Not Found (IDNF) errors, making the drives unusable and causing data to be destroyed. See “WD Red SMR Drive Compatibility with ZFS,” *iXsystems* website, April 29, 2020, available at <https://www.ixsystems.com/blog/library/wd-red-smr-drive-compatibility-with-zfs/>. Unsurprisingly, iXsystems recommends that users not install SMR WD Red NAS drives in any ZFS or FreeNAS systems.

not pass those savings onto consumers.<sup>53</sup> Western Digital priced the WD Red NAS Drives using SMR (in the below screenshot, the EFAX HDD) roughly the same as those WD Red NAS Drives that use CMR (in the below screenshot, the EFRX HDD)<sup>54</sup>:



**WD Red 2TB NAS Hard Drive - 5400 RPM Class, SATA 6 Gb/s, 64 MB Cache, 3.5" - WD20EFRX (B008JJLZ7G)**

PERSONAL COMPUTER » PERSONAL COMPUTERS » WESTERN DIGITAL

EAN: 080919058853

Model: **WD20EFRX**

[Buy at Amazon](#)

Price Type	Current Price
Amazon Price	<b>\$80.06</b>
3rd Party New Price	Not In Stock
3rd Party Used Price	Not In Stock



**WD Red 2TB NAS Internal Hard Drive - 5400 RPM Class, SATA 6 Gb/s, 256MB Cache, 3.5" - WD20EFAX (B07PGWXQCM)**

PERSONAL COMPUTER » PERSONAL COMPUTERS » WESTERN DIGITAL

EAN: 071803785813

Model: **WD20EFAX**

[Buy at Amazon](#)

Price Type	Current Price
Amazon Price	<b>\$81.49</b>
3rd Party New Price	Not In Stock
3rd Party Used Price	Not In Stock

#### D. Western Digital's Continued Bad Conduct

89. Incredibly, and despite this rebuke from WDC's technology "partners," WDC's response has been to double-down on its deception.

90. In a blog post WDC put out on April 20, 2020, WDC continued to claim that using SMR in NAS drives was appropriate because "The data intensity of typical small business/home NAS workloads is intermittent, leaving sufficient idle time for DMSMR drives to perform background data management tasks as needed and continue an optimal performance experience for users."<sup>55</sup> This was similar to WDC's prior inaccurate statement to *Blocks & Files* that "recording technology typically does not impact small business/home NAS-based use cases. In device-managed SMR HDDs, the drive does its internal data management during idle

<sup>53</sup> Paul Alcorn, *Western Digital Fesses Up: Some Red HDDs Use Slow SMR Tech Without Disclosure*.

<sup>54</sup> Jim Salter, *Buyer Beware—That 2TB-6TB "NAS" Drive You've Been Eyeing Might be SMR*.

<sup>55</sup> See "On WD Red NAS Drives," *Western Digital BLOG*, available at <https://blog.westerndigital.com/wd-red-nas-drives/> (emphasis added).

1 times. In a typical small business/home NAS environment, workloads tend to be bursty in  
 2 nature, leaving sufficient idle time for garbage collection and other maintenance operations.”<sup>56</sup>

3 91. But WDC’s acknowledgment on its public blog and to *Blocks & Files* that  
 4 SMR-technology WD Red NAS hard drives are appropriate only for “intermittent” occasional  
 5 “bursty” writes is in fact an admission that these hard drives are not suitable for their advertised  
 6 and intended use in NAS and RAID systems. WDC admitted that the drives require “sufficient  
 7 idle time for garbage collection and other maintenance operations” (unlike CMR drives)—  
 8 which is incompatible with usage in NAS and RAID systems.<sup>57</sup>

9 92. In fact, WDC’s own engineers were on the record stating that DM-SMR drives  
 10 like the SMR Red NAS drives, “Due to the wide range of performance variability and  
 11 unpredictability ... [are] impractical and unacceptable for enterprise-class deployments” and  
 12 that such drives are only appropriate for “client PC use and external backup HDDs in the client  
 13 space.” Shortly after the Red SMR scandal broke—and in a transparent effort to avoid liability  
 14 for selling NAS-labeled hard drives that its own engineers had acknowledged were not fit for  
 15 their intended purpose—WDC scrubbed the blog to remove all such negative references to  
 16 DM-SMR. The original, pre-scrubbed version of the blog was archived and is still available on  
 17 the Internet Archive Wayback Machine.<sup>58</sup>

18 93. Remarkably, WDC continues to falsely advertise and promise that these SMR-  
 19 technology WD Red NAS drives are designed and appropriate for RAID and NAS. WDC  
 20 continues to keep “NAS” in the name of these SMR drives, and continues to promise and  
 21 \_\_\_\_\_

22 <sup>56</sup> See Chris Mellor, “Western Digital admits 2TB-6TB WD Red NAS drives use shingled  
 23 magnetic recording,” *Blocks & Files*, April 14, 2020, available at  
 24 <https://blocksandfiles.com/2020/04/14/wd-red-nas-drives-shingled-magnetic-recording/>.

25 <sup>57</sup> *Id.*

26 <sup>58</sup> For the original version of the WDC technical blog, see the Wayback Machine archived  
 27 version dated April 23, 2020, available  
 28 at: <https://web.archive.org/web/20200423133021/http://zonedstorage.io/introduction/smr/>. The  
 current “scrubbed” version of the blog with all negative references to DM-SMR removed is  
 available at <http://zonedstorage.io/introduction/smr/>. Plaintiffs’ counsel also discovered a prior  
 June 2018 WDC white paper that discussed the limitations of DM-SMR hard drives, available  
 at [https://documents.westerndigital.com/content/dam/doc-library/en\\_us/assets/public/western-digital/collateral/white-paper/white-paper-shingled-magnetic-recording-helioseal-technology.pdf](https://documents.westerndigital.com/content/dam/doc-library/en_us/assets/public/western-digital/collateral/white-paper/white-paper-shingled-magnetic-recording-helioseal-technology.pdf).

1 advertise (and to provide marketing materials to its resellers that promise and advertise) that the  
 2 SMR drives are: **“purpose-built for NAS,” “Built for NAS compatibility,” “Designed for**  
 3 **RAID environments,” “specifically designed for use in NAS systems with up to 8 bays,”**  
 4 and are appropriate for **“Small and home office NAS systems in a 24x7 environment.”** WDC  
 5 continues to state: **“Desktop drives aren’t purpose-built for NAS. But WD Red drives with**  
 6 **NASware technology are. Our exclusive technology takes the guesswork out of selecting a**  
 7 **drive... In a Network Attached Storage device, a desktop hard drive is not typically**  
 8 **designed for NAS environments. Do right by your NAS and choose the drive designed for**  
 9 **NAS with an array of features to help preserve your data ...”**

10 94. WDC knows these statements are false, and that these SMR-technology Red  
 11 NAS drives are not appropriate for NAS or RAID.

12 95. Even worse, WDC has blamed its own customers for the problems they are  
 13 experiencing with these inferior SMR-technology Red drives. WDC has accused its customers  
 14 of overusing the drives “in system workloads far exceeding their intended uses.” WDC has  
 15 suggested that affected customers somehow should have known to purchase different NAS hard  
 16 drives (i.e., NAS drives with CMR technology) to perform what were in fact typical NAS  
 17 workloads, even though WDC had not previously disclosed what recording technology any of  
 18 its NAS hard drives had used. In truth, the earlier CMR versions of the same-capacity “WD  
 19 Red NAS” drives (i.e., the prior \*EFRX CMR versions of the drives, as opposed to the newer  
 20 \*EFAX SMR versions of the drives) could easily perform such “workloads,” as could all  
 21 competing NAS drives from other manufacturers (all of which utilized CMR technology).

22 96. Any and all recent purported disclosures which WDC has made regarding the  
 23 WD Red NAS hard drives since WDC first publicly admitted on April 14, 2020 that it had  
 24 snuck SMR technology into the drives, have been insufficient and inadequate. Based on the  
 25 investigation of Plaintiffs’ counsel, the only additional disclosures or changes in its marketing  
 26 that WDC has made since April 14, 2020 are to update its technical product datasheet for the  
 27 hard drives to add a single line specifying either “CMR” or “SMR” recording technology for  
 28 each listed hard drive SKU, without explaining or disclosing what that means or its

1 significance.

2 97. The disclosure of the utilization of SMR versus CMR technology continues to  
3 not appear anywhere in the advertising, online brochures and specifications which customers  
4 actually see on the product webpages of WDC resellers such as Amazon.com and  
5 Newegg.com. But even if prospective customers somehow did come across the words “SMR”  
6 or “CMR,” they would have no idea of their significance or what those letters meant. A  
7 reasonable consumer (the WD Red NAS drives are marketed to consumers and small  
8 businesses) would not see these strange abbreviations and understand that they completely  
9 nullify all the advertising and representations WDC is making about the drives being “purpose-  
10 built” for NAS and RAID.

11 98. The bottom line is that Plaintiffs and Class members who purchased the WD  
12 Red NAS Drives were not told that the WD Red NAS Drives—previously the “best in class”—  
13 use SMR technology, which affects drive performance and data stability. Western Digital  
14 failed to disclose anywhere that the WD Red NAS Drives utilize SMR technology. It does not  
15 appear on the WD Red NAS Drives’ packaging, on Defendant’s website, or the websites of  
16 other major retailers. Quite the contrary, Western Digital affirmatively represented to  
17 consumers that the WD Red NAS Drives were built for NAS and RAID, when in fact the use of  
18 SMR technology made the WD Red NAS Drives unsuited for these purposes. Had WDC  
19 disclosed that the WD Red NAS Drives used inferior SMR technology, Plaintiffs and Class  
20 members would have been aware of this material fact and consequently would not have  
21 purchased the WD Red NAS Drives.

22 99. As a result of WDC’s fraud and deception, thousands of customers nationwide,  
23 including the ten Plaintiffs, who purchased these WD Red NAS hard drives for their advertised  
24 and intended use, have been duped and have suffered harm and damages. Ultimately, the hard  
25 drives are not suitable for their intended purpose—and are in fact dangerous to customer data.  
26  
27  
28



**PLAINTIFFS' FACTUAL ALLEGATIONS**

**Plaintiff Nicholas Malone**

100. Plaintiff Nicholas Malone is, and at all relevant times has been, a citizen and resident of Madison, Wisconsin.

101. In March 2020, Malone desired to purchase a NAS device along with hard drives which were designed for use in that NAS device with a RAID setup. Malone wanted to store his important home personal data, media files, and computer backups in a centralized, large datastore with data redundancy and security features, and had determined that a NAS system utilizing RAID for redundancy and failure recovery was the best solution.

102. On March 6, 2020, Malone went to Amazon.com to shop for a NAS device and NAS-appropriate hard drives. Malone decided to purchase a QNAP 4-bay NAS device.

103. Malone then began researching the options available on Amazon for four 6TB NAS-appropriate hard drives to put into the QNAP NAS device. Malone previously had purchased and had been happy with many WDC hard drives over the years, and he understood them to have a good reputation for reliability and quality. Malone browsed the Amazon product webpage for the WD Red NAS 6TB hard drive, and viewed the advertising and product information (which was provided to Amazon by WDC). Besides seeing that the drive had "NAS" in the product name, Malone viewed the prominent bullet points on the product webpage which stated: **"Specifically designed for use in NAS systems with up to 8 bays," "Small and home office NAS systems in a 24/7 environment," and "NASware firmware for compatibility."**

104. Lower down on the product webpage for the WD Red NAS 6TB hard drive was a colorful product brochure labeled: "From the manufacturer." Malone viewed the representations there, including: **"There's a leading edge WD Red drive for every compatible NAS system to help fulfill your data storage needs... WD Red drives pack the power to store your precious data in one powerhouse unit"** and **"3D Active Balance Plus. Helps ensure your data is protected ... in a NAS or RAID environment."** Based on these representations, Malone reasonably believed and understood the WD Red NAS 6TB hard drive

1 was specifically designed and built for NAS device RAID environments like the QNAP system  
2 he intended to purchase and set up (unlike cheaper consumer desktop hard drives which were  
3 not purpose-built for NAS and RAID).

4 105. Malone had no idea the hard drives in fact utilized inferior and inappropriate  
5 SMR technology, which was not disclosed to him. Regardless, even if the letters “SMR” had  
6 appeared in the hard drive description, Malone would not have known what SMR was or what  
7 it stood for or what if any impact SMR had on hard drive performance.

8 106. Malone also viewed the product webpage for a NAS hard drive from a  
9 competing manufacturer, the Seagate IronWolf 6TB NAS hard drive. The Seagate hard drive  
10 was likewise advertised as having been designed and built for NAS and RAID for devices with  
11 up to 8 drive bays.

12 107. Relying on the representations regarding the WD Red NAS 6TB hard drive on  
13 the Amazon webpage, and also based on his prior good experience with WDC hard drives,  
14 Malone decided to purchase four of the WD Red NAS 6TB hard drives for \$150.12 each,  
15 paying a total of \$600.48 plus tax. The SKU for the hard drives was WD60EFAX. Malone also  
16 purchased the QNAP NAS device (the QNAP TS-453Be-4G-US) for \$548.89 plus tax.

17 108. After receiving the WD Red NAS hard drives and QNAP NAS device, Malone  
18 installed the hard drives into the QNAP and set up the device with RAID 5 redundancy.

19 109. Over the next month and a half, Malone gradually moved and copied his  
20 personal data and media files over to the NAS, and also stored backups of his computer system,  
21 filing the NAS with almost 18TB of important and valuable data. Malone noticed that the  
22 write/copy speed when transferring these files seemed to be slower and worse than he had  
23 previously experienced with other hard drives and other NAS devices.

24 110. In late April or early May 2020, Malone viewed a YouTube video about NAS  
25 setup and storage. During the video, the narrator began talking about the recent scandal about  
26 WDC having admitted that some of its WD Red NAS hard drives utilized SMR technology.  
27 The narrator explained that the SMR technology was inappropriate for NAS systems and  
28 should not have been advertised and sold for that purpose by WDC.



1           111. After viewing this video, Malone became concerned that he had purchased these  
2 SMR-technology WD Red NAS hard drives. After researching the matter further, he learned  
3 that the four hard drives he had purchased (with SKU WD60EFAX) did indeed utilize SMR  
4 recording technology.

5           112. Malone had been defrauded. Malone had bought the hard drives based on  
6 WDC's representations that the drives were purpose-built for NAS and RAID, and had  
7 specifically purchased and set up his system for the redundancy and failure recovery features  
8 that NAS with RAID provided. But the hard drives he purchased, contrary to WDC's express  
9 representations, were not appropriate for NAS or RAID. In fact, by using the hard drives for  
10 their intended and advertised purpose, in a NAS device with RAID, his data was now at  
11 increased risk.

12           113. Malone was now, and continues to be, extremely upset and worried about losing  
13 his data. The failure of a single drive could result in the loss of data due to the much longer  
14 RAID rebuild times (i.e., resilvering) as compared to CMR drives, which would put his data at  
15 increased risk. Malone is also unable to perform recommended and standard RAID "scrubbing"  
16 to ensure the integrity of his data and to automatically correct any disk errors, because the  
17 process could cause one or more hard drives to be kicked out of the RAID array, potentially  
18 causing data loss. In order to secure and protect his data, Malone now must now expend  
19 hundreds more dollars and many hours of his time to purchase several external hard drives  
20 and/or a second NAS, and then copy his data over to the new storage.

21           114. Malone reasonably relied on WDC's misrepresentations and omissions of  
22 material facts. If Malone had known that the WD Red NAS hard drives he purchased utilized  
23 recording technology which was inappropriate for their intended and advertised use, Malone  
24 would not have purchased the hard drives. Malone would have purchased different hard drives  
25 that were truly appropriate for NAS and RAID use, such as the Seagate IronWolf 6TB NAS  
26 hard drive that he had also considered while shopping on Amazon.com. In fact, no other  
27 leading hard drive manufacturer uses this inferior SMR technology in its hard drives that are  
28 labeled for NAS or RAID use.

1 115. As a direct and proximate result of WDC's acts and omissions, Malone was  
2 harmed, suffered an injury-in-fact, and lost money or property.

3 116. Malone has a legal right to rely now, and in the future, on the truthfulness and  
4 accuracy of WDC's representations.

5 117. Malone would purchase WD NAS hard drives again if he could have confidence  
6 regarding the truth of WDC's representations regarding their appropriateness and fitness for  
7 NAS systems and RAID.

8 118. Malone will be harmed if, in the future, he is left to guess as to whether WDC's  
9 representations are accurate and whether there are omissions of material facts regarding the  
10 features or specifications of WDC's NAS hard drives.

11 119. If Malone were to purchase a WD NAS hard drive again without WDC having  
12 changed its unlawful and deceptive conduct alleged herein, Malone would be harmed on an  
13 ongoing basis and/or would be harmed once or more in the future.

14 **Plaintiff Chris Ayers**

15 120. Plaintiff Chris Ayers is, and at all relevant times has been, a citizen and resident  
16 of Temple Terrace, Florida.

17 121. In May 2020, one of the hard drives in Ayers' four-bay Netgear ReadyNAS  
18 network-attached storage unit failed. At that time, the NAS unit, which Ayers utilized at his  
19 home to store personal files, contained four 3TB Western Digital Caviar Green hard drives in  
20 RAID 5. Ayers had first installed the four 3TB Caviar Green drives approximately 8 years  
21 earlier. Three years after he had installed the Caviar Green hard drives, one of the drives had  
22 failed, and Ayers replaced it with an identical Caviar Green drive. Over the next five years  
23 Ayers did not have any other drive failures, until May 2020 when a second 3TB Caviar hard  
24 drive failed.

25 122. The ReadyNAS unit utilized a Linux software RAID technology which Netgear  
26 called X-RAID, which allowed mixing of different size drives to expand storage while  
27 maintaining redundancy such that one hard drive could fail without suffering data loss. When  
28 this 3TB Caviar Green drive failed in May 2020, Ayers replaced it with a Seagate 6TB drive.

1 After he installed the replacement Seagate 6TB drive, the ReadyNAS took approximately 8  
 2 hours to rebuild the RAID array and redistribute the data among the hard drives (i.e., to  
 3 perform the RAID rebuilding, or “resilvering” process).

4 123. Ayers then decided to further expand the storage capacity of his ReadyNAS by  
 5 replacing the remaining three 3TB hard drives with three larger 6TB hard drives. To do so,  
 6 Ayers would need to purchase the three 6TB hard drives, and then replace the drives  
 7 sequentially, waiting for the RAID volume to rebuild each time (and thus performing three  
 8 separate rebuilds, one for each new drive).

9 124. On May 17, 2020, Ayers went to Amazon.com to shop for a new 6TB hard drive  
 10 that was purpose-built for NAS devices like his. For over a decade, Ayers had purchased and  
 11 had been happy with WDC hard drives, and he understood them to have a good reputation for  
 12 reliability and quality. Ayers browsed the Amazon product webpage for the WD Red NAS 6TB  
 13 hard drive, and viewed the advertising and product information (which was provided to  
 14 Amazon by WDC). Besides seeing that the drive had “NAS” in the product name, Ayers  
 15 viewed the prominent bullet points on the product webpage which stated: **“Specifically**  
 16 **designed for use in NAS systems with up to 8 bays,” “Small and home office NAS systems**  
 17 **in a 24/7 environment,”** and **“NASware firmware for compatibility.”**

18 125. Lower down on the product webpage for the WD Red NAS 6TB hard drive was  
 19 a colorful product brochure labeled: “From the manufacturer.” Ayers viewed the  
 20 representations there, including: **“There’s a leading edge WD Red drive for every**  
 21 **compatible NAS system to help fulfill your data storage needs... WD Red drives pack the**  
 22 **power to store your precious data in one powerhouse unit”** and **“3D Active Balance Plus.**  
 23 **Helps ensure your data is protected ... in a NAS or RAID environment.”** Based on these  
 24 representations, Ayers reasonably believed and understood the WD Red NAS 6TB hard drive  
 25 was specifically designed and built for NAS device RAID environments like his ReadyNAS  
 26 system.

27 126. Ayers had no idea the WD Red NAS 6TB hard drive in fact utilized inferior and  
 28 inappropriate SMR technology, which was not disclosed to him. Regardless, even if the letters

1 “SMR” had appeared in the hard drive description, Ayers would not have known what SMR  
2 was or what it stood for or what if any impact SMR had on hard drive performance.

3 127. Relying on the representations regarding the WD Red NAS 6TB hard drive on  
4 the Amazon product webpage, and also based on his prior good experience with WDC hard  
5 drives, Ayers decided to purchase one WD Red NAS 6TB hard drive for \$156.83 plus tax. The  
6 SKU for the hard drive was WD60EFAX.

7 128. A few days later, on May 23, 2020, Ayers went to the same Amazon product  
8 webpage for the WD Red NAS 6TB hard drive, viewed the same advertising and  
9 representations on the webpage, and purchased two more of the drives for a total of \$303.98  
10 plus tax. The SKU for the hard drives was WD60EFAX.

11 129. After receiving the hard drives, Ayers replaced the first of his three remaining  
12 3TB drives with one of the WD Red NAS 6TB hard drives. This time, the resilvering process  
13 took much longer, approximately 14 hours.

14 130. After the resilvering process completed, Ayers replaced another of the 3TB  
15 drives with another of the new WD Red NAS 6TB hard drives. This time, the resilvering  
16 process took more than 24 hours.

17 131. After the resilvering process completed, Ayers replaced the third (and last  
18 remaining) 3TB drive with the third WD Red NAS 6TB hard drive. This time, the resilvering  
19 process went on for more than 24 hours, and then failed altogether. The ReadyNAS unit  
20 became unresponsive. Ayers nervously rebooted the ReadyNAS unit. After rebooting, the  
21 resilvering process continued, and then finally completed after a few more hours.

22 132. Ayers was very concerned about the problems he had experienced in the  
23 resilvering process. Ayers was worried about potential data loss. Ayers also noticed that the  
24 performance of the ReadyNAS was now noticeably worse than before he had added the WD  
25 Red NAS 6TB drives. Ayers would occasionally experience strange delays, disconnects, and  
26 temporary “hangs” when accessing or writing data and when opening files, which he had not  
27 previously experienced prior to adding the WD Red NAS 6TB drives.

28 133. Ayers did an online search to try to learn why he was experiencing such poor

1 performance. Ayers found and read an article on *Ars Technica* which discussed how WDC had  
2 snuck inferior SMR technology into its WD Red NAS hard drives, causing poor performance,  
3 hard disks to get knocked out of RAID arrays, and increased risk of data loss. After some  
4 further research, Ayers learned that WDC had recently admitted to the technology press that the  
5 WD Red NAS 6TB drives he purchased, with SKU WD60EFAX, were among these inferior  
6 and inappropriate SMR-technology drives.

7 134. Ayers had been defrauded. Ayers had bought the hard drives based on WDC's  
8 representations that the drives were purpose-built for NAS and RAID. But the hard drives he  
9 purchased, contrary to WDC's express representations, were not appropriate for NAS or RAID.  
10 Ayers' data was now at risk, and he also was experiencing worse performance in his NAS than  
11 he had prior to installing the WD Red NAS hard drives.

12 135. Ayers was, and continues to be, extremely upset and worried about losing his  
13 data. The failure of a single drive could result in the loss of data due to the much longer RAID  
14 rebuild times (i.e., resilvering) of these SMR drive as compared to CMR drives. Ayers has  
15 already witnessed this much longer and riskier resilvering process first-hand. Meanwhile,  
16 Ayers is also unhappy with the slower performance he continues to experience in reading and  
17 writing files.

18 136. Ayers reasonably relied on WDC's misrepresentations and omissions of material  
19 facts. If Ayers had known that the WD Red NAS hard drives he purchased utilized recording  
20 technology which was inappropriate for their intended and advertised purpose, Ayers would not  
21 have purchased the hard drives. Ayers would have purchased different CMR-technology hard  
22 drives that were truly appropriate for NAS and RAID use instead.

23 137. As a direct and proximate result of WDC's acts and omissions, Ayers was  
24 harmed, suffered an injury-in-fact, and lost money or property.

25 138. Ayers would purchase WD NAS hard drives again if he could have confidence  
26 regarding the truth of WDC's representations regarding the drives' appropriateness and fitness  
27 for NAS systems and RAID.

28 139. Ayers will be harmed if, in the future, he is left to guess as to whether WDC's

1 representations are accurate and whether there are omissions of material facts regarding the  
2 features or specifications of WDC's NAS hard drives.

3 **Plaintiff James Backus**

4 140. Plaintiff James Backus is, and at all relevant times has been, a citizen and  
5 resident of Suffolk, Virginia.

6 141. In April 2020, Backus purchased a 5-bay Synology DS1019+ network attached  
7 storage device from Newegg.com for use in his home. Backus also planned to purchase two  
8 4TB NAS drives and two 6TB NAS hard drives which were purpose-built for use in a NAS  
9 RAID device like the Synology unit.

10 142. Over the past decade, Backus had been loyal to the Western Digital brand and  
11 its WD Red NAS hard drives based on their reputation for being best-in-class for NAS and  
12 RAID, and based on his excellent experience with their performance. Backus had previously  
13 purchased at least eight WD Red NAS drives, many of which he was still using in another  
14 Synology DS410j NAS unit and in a PC server with a RAID array.

15 143. On April 11, 2020, Backus visited Amazon.com and browsed the product  
16 webpage for the WD Red NAS 4TB hard drive. Backus viewed the advertising and product  
17 information (which was provided to Amazon by WDC) on the product webpage. Backus  
18 viewed the prominent bullet points on the product webpage which stated: **"Specifically**  
19 **designed for use in NAS systems with up to 8 bays," "Small and home office NAS systems**  
20 **in a 24/7 environment," "NASware firmware for compatibility," and "Supports up to**  
21 **180TB/yr workload rate."**

22 144. Lower down on the product webpage for the WD Red NAS 4TB hard drive was  
23 a colorful product brochure labeled: "From the manufacturer." Backus viewed the  
24 representations there, including: **"There's a leading edge WD Red drive for every**  
25 **compatible NAS system to help fulfill your data storage needs... WD Red drives pack the**  
26 **power to store your precious data in one powerhouse unit"** and **"3D Active Balance Plus.**  
27 **Helps ensure your data is protected ... in a NAS or RAID environment."** Based on these  
28 representations, and based on his own past excellent experience with WD Red NAS hard drives

1 in his NAS devices and PC RAID storage arrays which was consistent with these  
2 representations, Backus reasonably believed and understood the WD Red NAS 4TB hard drive  
3 was specifically designed, built, and optimized for NAS device RAID environments like the  
4 Synology DS1019+ unit.

5 145. Backus had no idea the WD Red NAS 4TB hard drive in fact utilized inferior  
6 and inappropriate SMR technology (unlike all of the WD Red NAS drives he had previously  
7 purchased and used), which was not disclosed to him.

8 146. Relying on the representations regarding the WD Red NAS 4TB hard drive on  
9 the Amazon product webpage, and also based on his prior good experience with WDC hard  
10 drives, Backus decided to purchase two WD Red NAS 4TB hard drives for \$203.98 plus tax.  
11 The SKU for the hard drives was WD40EFAX.

12 147. That same day on April 11, 2020, Backus visited Newegg.com and browsed the  
13 product webpage for the WD Red NAS 6TB hard drive. Backus viewed the advertising and  
14 product information on the product webpage (which was provided to Newegg by WDC).  
15 Backus viewed the prominent bullet points on the product webpage which stated: **“Specifically**  
16 **designed for use in NAS systems with up to 8 bays,” “Small and home office NAS systems**  
17 **in a 24/7 environment,” “NASware firmware for compatibility,” and “Supports up to**  
18 **180TB/yr workload rate.”**

19 148. Lower down on the product webpage for the WD Red NAS 4TB hard drive was  
20 a colorful product brochure provided and created by WDC. Backus viewed the representations  
21 there, including: **“There’s a leading edge WD Red drive for every compatible NAS system**  
22 **to help fulfill your data storage needs... WD Red drives pack the power to store your**  
23 **precious data in one powerhouse unit”; “The drive for NAS. Desktop drives aren’t**  
24 **typically tested or designed for the rigors of a NAS system. Do right by your NAS and**  
25 **choose the drive with an array of features to help preserve your data and maintain**  
26 **optimum performance”; and “Built for NAS Compatibility. WD Red drives with NASware**  
27 **3.0 technology are purpose-built to balance performance and reliability in NAS and**  
28 **RAID environments.”**



1           149. Backus had no idea that the WD Red NAS 6TB hard drive in fact utilized  
2 inferior and inappropriate SMR technology, which was not disclosed to him.

3           150. Relying on the representations regarding the WD Red NAS 6TB hard drive on  
4 the Newegg.com product webpage, and also based on his prior good experience with WDC  
5 hard drives, Backus decided to purchase two WD Red NAS 6TB hard drives for \$317.98 plus  
6 tax. The SKU for the hard drives was WD60EFAX.

7           151. When Backus received the four hard drives, he installed them into the Synology  
8 DS1019+ NAS unit. He configured the Synology to set the four drives up in a RAID 10 array,  
9 where they would be split into two groups of 8TB arrays, each having one 4TB drive, and one  
10 6TB drive that was formatted as a 4TB drive. The two 8TB arrays would be clones of each  
11 other for redundancy and reliability. Backus then started the build process for the RAID 10  
12 array, which took longer than he expected to complete as compared to his past experience of  
13 resilvering with his other WD Red NAS drives.

14           152. A key reason Backus set up the drive array with RAID 10 in this way was to  
15 enable and facilitate ready expansion when needed. When he needed more capacity later, his  
16 plan was to first replace one of the 4TB drives with another 6TB Red NAS drive (but to format  
17 it as a 4TB drive), and then rebuild the array with the new drive. Then he would replace the  
18 other 4TB drive with another 6TB Red NAS drive in the same way. Finally, once all the drives  
19 were WD 6TB Red NAS drives, he would expand the volume size on the drives from 4TB to  
20 6TB. This process necessarily would require two full RAID rebuilds (i.e., two resilvering  
21 processes) to expand his data capacity.

22           153. Backus populated the fifth bay of the Synology DS1019+ with a stand-alone  
23 older hard drive containing many small files and family photos which he wanted to copy onto  
24 the new storage array. After the resilvering process had completed on the storage array, Backus  
25 began copying several terabytes of data from this older hard drive over to the new RAID array.  
26 Backus noticed that the copy performance was poor and slow, with stops and starts. After a  
27 period of time, the copying process would slow dramatically, freeze up, and then after a while  
28 speed up again, only to repeat the process ad nauseam.



1           154. After the copying finally completed, Backus noticed that the storage array on the  
 2 Synology DS1019+ continued to perform more poorly than he expected based on his past  
 3 experience. Backus would occasionally experience strange delays, disconnects, and temporary  
 4 “hangs” when accessing or writing data and on opening files, which he had not previously  
 5 experienced with his other NAS units and RAID arrays. Backus also noticed delays and stops  
 6 and starts when playing videos stored on the storage array, which he had never previously  
 7 experienced with his other hard drives.

8           155. In late April, Backus read an article on *Ars Technica* about how WDC had snuck  
 9 inferior and inappropriate SMR technology into its WD Red NAS hard drives, causing poor  
 10 performance, hard disks to get knocked out of RAID arrays, and increased risk of data loss.  
 11 After some further research, Backus learned that WDC had recently admitted to the technology  
 12 press that the WD Red NAS 4TB and 6TB drives he purchased, with SKUs WD40EFAX and  
 13 WD60EFAX, were among these inferior SMR-technology drives.

14           156. Notably, after WDC publicly admitted in late April 2020 that certain SKUs of its  
 15 WD Red NAS hard drives now contained SMR technology<sup>59</sup>, Synology (the manufacturer of  
 16 Backus’ NAS device) removed those SMR hard drives from Synology’s compatibility list—  
 17 including the hard drives with SKUs WD40EFAX and WD60EFAX which Backus had  
 18 purchased. Based on the investigation of Plaintiffs’ counsel, Synology customer support staff  
 19 now tell Synology customers, when asked, that they should not use these SMR-technology WD  
 20 Red NAS drives in Synology products and that the drives are not supported.

21           157. Backus had been defrauded. Backus felt betrayed and taken advantage of by  
 22 WDC. WDC had tricked Backus into relying on the past reputation and performance of WD  
 23 Red NAS drives. WDC had secretly snuck the inferior SMR-technology into the drives to  
 24 increase its short-term profits while exploiting customers like Backus whom WDC kept in the  
 25 dark. WDC had continued to promise and advertise that the WD Red NAS hard drives he  
 26 purchased were “purpose-built” for NAS devices and RAID and that the drives were

27 \_\_\_\_\_  
 28 <sup>59</sup> Specifically, the following SKUs: WD20EFAX, WD30EFAX, WD40EFAX, and WD60EFAX.

1 compatible with his Synology unit. But the hard drives he purchased, contrary to WDC's  
2 express representations, were not appropriate for NAS or RAID, and Synology now states that  
3 the drives are inappropriate for and are not supported in its NAS units.

4 158. Backus' data was now at risk, and he also was experiencing worse performance  
5 in his NAS than he had ever experienced before with other drives that (in contrast) had truly  
6 been appropriate for NAS and RAID.

7 159. Backus was, and continues to be, extremely upset and worried about losing his  
8 data, especially in the event he needs to perform a RAID rebuild. The failure of a single drive  
9 could result in the loss of data due to the inferior technology and much longer RAID rebuild  
10 times (i.e., resilvering) of these SMR drives as compared to CMR drives. Backus had  
11 specifically purchased these drives for their appropriateness and reliability in RAID and  
12 resilvering, because his entire expansion plan was contingent on performing multiple RAID  
13 rebuilds in sequence. Yet now he could no longer do so, because he would be putting his data at  
14 increased risk due to the inappropriate SMR technology utilized by these hard drives. In order  
15 to secure and protect his data, Backus must now expend hundreds more dollars and many hours  
16 of his time to purchase several external hard drives and/or another NAS device, and then copy  
17 his data over to the new storage, which he cannot now afford to do.

18 160. Backus reasonably relied on WDC's misrepresentations and omissions of  
19 material facts. If Backus had known that the WD Red NAS hard drives he purchased utilized  
20 recording technology which was inappropriate for the drives' intended and advertised use,  
21 Backus would not have purchased the hard drives. Backus would have purchased different  
22 CMR-technology hard drives that were truly appropriate for NAS and RAID use instead.

23 161. As a direct and proximate result of WDC's acts and omissions, Backus was  
24 harmed, suffered an injury-in-fact, and lost money or property.

25 162. Backus would purchase WD NAS hard drives again if he could have confidence  
26 regarding the truth of WDC's representations regarding the drives' appropriateness and fitness  
27 for NAS systems and RAID.

28 163. Backus will be harmed if, in the future, he is left to guess as to whether WDC's

1 representations are accurate and whether there are omissions of material facts regarding the  
2 features or specifications of WDC's NAS hard drives.

3 **Plaintiff Brian Conway**

4 164. Plaintiff Brian Conway is, and at all relevant times has been, a citizen and  
5 resident of Mansfield, Massachusetts.

6 165. Between June 2017 and January 2018, Conway purchased six CMR-technology  
7 WD Red NAS drives with SKU WD60EFRX from Amazon.com and Newegg.com. In  
8 purchasing the hard drives, Conway relied on the WDC-provided representations displayed on  
9 the Amazon.com and Newegg.com product webpages for the WD Red NAS hard drives that  
10 the drives were designed and purpose-built for NAS and RAID.

11 166. Conway also understood WD Red NAS hard drives to have a good reputation  
12 for reliability and quality in RAID and ZFS arrays and to have a three-year warranty.

13 167. Based on WDC's representations and on the excellent reputation of WD Red  
14 NAS hard drives, Conway purchased the six WD Red NAS hard drives.

15 168. Conway configured all six drives in a FreeNAS ZFS disk array in a PC server at  
16 his home for personal use. Conway experienced excellent performance with the drives for over  
17 two years.

18 169. Then in late April 2020 one of the WD60EFRX hard drives failed within the 3-  
19 year warranty period. Conway contacted WDC and received an RMA for the drive, and  
20 Conway shipped the drive to WDC for replacement.

21 170. WDC shipped Conway a replacement drive for the failed WD60EFRX hard  
22 drive. The replacement drive had the SKU of WD60EFAX.

23 171. Conway installed the new WD60EFAX drive in his server, and then attempted  
24 to resilver the ZFS pool with the new drive. After over 24 hours, the resilvering process had  
25 failed to make much progress (unlike his experience in the past with the other drives where  
26 resilvering completed in approximately 10-12 hours), and Conway concluded there must be  
27 something wrong with the drive because he was unable to add it to the ZFS pool. Conway  
28 terminated the resilvering process.

1           172. Conway had another older, and mostly empty, WD60EFRX drive which he had  
2 been using as a standalone drive in the same server. Conway moved the data off that  
3 WD60EFRX and then added the now-empty WD60EFRX drive to the ZFS pool instead. This  
4 time, the resilvering process took approximately 12 hours and completed without any problems.  
5 Since then, Conway has experienced no problems with the performance or reliability of the  
6 FreeNAS ZFS storage array.

7           173. Meanwhile, Conway is unable to use the replacement hard drive WDC shipped  
8 him (SKU WD60EFAX) at all. Conway later researched the SKU for the drive on Google in an  
9 effort to learn why the drive was unusable in his storage array, and he learned that WDC had  
10 recently admitted that the WD60EFAX drive utilized SMR technology.

11           174. WDC had deceptively and unfairly replaced his CMR-technology WD60EFRX  
12 drive during the warranty period with an inappropriate SMR-technology hard drive that was not  
13 suitable for its intended and advertised purpose. WDC's actions were unfair and deceptive.

14           175. As a direct and proximate result of WDC's acts and omissions, Conway was  
15 harmed, suffered an injury-in-fact, and lost money or property.

16           176. Conway would purchase WD NAS hard drives again if he could have  
17 confidence regarding the truth of WDC's representations regarding the drives' appropriateness  
18 and fitness for NAS systems and RAID.

19           177. Conway will be harmed if, in the future, he is left to guess as to whether WDC's  
20 representations are accurate and whether there are omissions of material facts regarding the  
21 features or specifications of WDC's NAS hard drives.

22           **Plaintiff David Eaton**

23           178. Plaintiff David Eaton is, and at all relevant times has been, a citizen and resident  
24 of Kirkwood, Missouri.

25           179. In September 2017, Eaton purchased a 4-bay Synology DS416play NAS unit  
26 along with two WD Red NAS 4TB drives. The hard drives utilized traditional CMR  
27 technology. The Synology NAS unit utilized a Linux software RAID technology which  
28 Synology called Synology Hybrid RAID (or "SHR"), which allowed mixing of different size

1 drives to expand storage while maintaining redundancy such that one hard drive could fail  
2 without suffering data loss.

3 180. Eaton installed the two WD Red NAS 4TB drives in the NAS, along with a 1TB  
4 drive and a 2TB drive that he already had, creating a SHR storage pool. Later, he swapped out  
5 the 1TB drive for a 2TB drive which he purchased. The resilvering process to rebuild the RAID  
6 array and redistribute the data among the hard drives including the new 2TB drive took  
7 approximately 8 hours.

8 181. On April 6, 2020, Eaton was shopping at his local Micro Center computer store  
9 in Brentwood, Missouri, when he saw WD Red NAS 6TB hard drives on display and for sale.  
10 For many years, Eaton had purchased and had been happy with WDC hard drives, and he  
11 understood them to have a good reputation for reliability and quality. Eaton understood that  
12 WD Red NAS drives were purpose-built for NAS devices with RAID setups like his Synology  
13 NAS. Eaton had been happy with his existing WD Red NAS 4TB hard drives and their  
14 performance.

15 182. Eaton saw that the outside box for the WD Red NAS 6TB drives stated “WD  
16 RED 3.5” NAS HARD DRIVE” and “RAID OPTIMIZED.” Eaton understood that the WD  
17 Red NAS hard drives were premium hard drives that were purpose-built for NAS and RAID,  
18 unlike cheaper desktop drives. The advertising and statements on the box of the WD Red NAS  
19 drives confirmed his understanding.

20 183. Eaton had no idea the WD Red NAS 6TB hard drive in fact utilized inferior and  
21 inappropriate SMR technology, which was not disclosed to him. Regardless, even if Eaton had  
22 seen the letters “SMR” in the hard drive description, he would not have known what SMR was  
23 or what it stood for or what if any impact SMR had on hard drive performance.

24 184. Relying on the representations on the box of the WD Red NAS 6TB hard drive,  
25 including the “NAS” in the name of the drive, the drive being advertised as “Raid Optimized,”  
26 and also based on Eaton’s prior good experience with the two WD Red NAS 4TB drives which  
27 were currently in his Synology NAS, Eaton decided to buy one WD Red NAS 6TB hard drive.  
28 Eaton purchased the WD Red NAS 6TB drive for \$149.99 plus tax.

1           185. Eaton replaced one of his existing 2TB drives with the WD Red NAS 6TB hard  
2 drive, and the Synology NAS began the resilvering process.

3           186. Eaton decided that he wanted to increase the storage capacity of his storage  
4 array even further, by also replacing the last 2TB drive in the Synology with another WD Red  
5 NAS 6TB drive.

6           187. The next day, on April 7, 2020, Eaton visited the Micro Center computer store  
7 again to purchase a second WD Red NAS 6TB hard drive.

8           188. After Eaton returned home with the second hard drive from the Micro Center  
9 computer store, he was surprised to see that the resilvering process with the first WD Red NAS  
10 6TB drive had not completed. Previously, with the 2TB hard drive, it had taken less than 10  
11 hours to complete the resilvering process.

12           189. In fact, this time with the WD Red NAS 6TB drive, the resilvering process  
13 ultimately took seven days – almost 17 times as long as the prior drive had taken.

14           190. After the resilvering process had completed, Eaton replaced the last 2TB drive  
15 with the second WD Red NAS 6TB drive he had purchased. The resilvering process again took  
16 approximately seven days.

17           191. Eaton uses the Synology NAS to store personal documents, family photos, and  
18 to store and serve videos and movies.

19           192. Eaton noticed that after the WD Red NAS 6TB hard drives were incorporated  
20 into his storage pool, playback of videos was often choppy with stops and starts—which he had  
21 not previously experienced prior to adding the WD Red NAS 6TB drives.

22           193. After experiencing this worse video playback performance and the extremely  
23 long resilvering process of seven days per drive, Eaton became concerned about the reliability  
24 of the hard drives in his storage array and the possibility of data loss.

25           194. In late April, Eaton read an article on *Ars Technica* about how WDC had snuck  
26 inferior and inappropriate SMR technology into its WD Red NAS hard drives, causing poor  
27 performance, hard disks to get knocked out of RAID arrays, and increased risk of data loss.  
28 Eaton learned that WDC had admitted that it had switched WD Red NAS 6TB hard drives with

the SKU WD60EFAX to the SMR technology. Eaton checked the web interface of his Synology NAS and saw that the two WD Red NAS 6TB hard drives were in fact the WD60EFAX drives with the inferior SMR technology.

195. Notably, after WDC publicly admitted in late April 2020 that certain SKUs of its WD Red NAS hard drives now contained SMR technology<sup>60</sup>, Synology (the manufacturer of Eaton’s NAS device) removed those SMR hard drives from its compatibility list—including the hard drive with SKU WD60EFAX which Eaton had purchased. Based on the investigation of Plaintiffs’ counsel, Synology customer support staff now tell Synology customers, when asked, that they should not use these SMR-technology WD Red NAS drives in their Synology products and that the drives are not supported.

196. Eaton had been defrauded. Eaton felt betrayed and taken advantage of by WDC. WDC had tricked Eaton into relying on the past reputation and performance of WD Red NAS drives. WDC had secretly snuck the inferior SMR-technology into the drives to increase its short-term profits while exploiting customers like Eaton whom WDC kept in the dark. WDC had continued to promise and advertise that the WD Red NAS hard drives he purchased were designed for NAS devices like his Synology unit. But the hard drives he purchased were not appropriate for NAS or RAID, and Synology now states that the drives are inappropriate for and are not supported in its NAS units.

197. Eaton was, and continues to be, extremely upset and worried about losing his data. The failure of a single drive could result in the loss of data due to the much longer RAID rebuild times—e.g., resilvering now takes seven days, as Eaton experienced when he installed the SMR drives, compared to the less than one day resilvering process which would be typical with a CMR drive. Eaton felt lucky he had not lost data the last time he resilvered with the SMR drives, and he does not want to push his luck further. Meanwhile, Eaton is also unhappy with the slower performance he continues to experience including choppy video playback.

198. Eaton reasonably relied on WDC’s misrepresentations and omissions of material

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<sup>60</sup> Specifically, the following SKUs: WD20EFAX, WD30EFAX, WD40EFAX, and WD60EFAX (the “WD Red NAS Drives” or “WD Red Drives”).



1 facts. If Eaton had known that the WD Red NAS hard drives he purchased utilized recording  
2 technology which was inappropriate for the drives' intended and advertised use, Eaton would  
3 not have purchased the hard drives. Eaton would have purchased different CMR-technology  
4 hard drives that were truly appropriate for NAS and RAID use instead.

5 199. As a direct and proximate result of WDC's acts and omissions, Eaton was  
6 harmed, suffered an injury-in-fact, and lost money or property.

7 200. Eaton would purchase WD NAS hard drives again if he could have confidence  
8 regarding the truth of WDC's representations regarding the drives' appropriateness and fitness  
9 for NAS systems and RAID.

10 201. Eaton will be harmed if, in the future, he is left to guess as to whether WDC's  
11 representations are accurate and whether there are omissions of material facts regarding the  
12 features or specifications of WDC's NAS hard drives.

13 **Plaintiff Steven Gravel**

14 202. Plaintiff Steven Gravel is, and at all relevant times has been, a citizen and  
15 resident of Delmar, New York.

16 203. In August 2019, Gravel purchased four WD Red NAS 4TB drives from  
17 Amazon.com for his 4-bay QNAP TS-453Be network attached storage device which he used in  
18 his home for personal use. Gravel purchased the 4TB WD Red NAS hard drives because they  
19 were advertised as being "purpose-built" for NAS and RAID, and he understood WD Red NAS  
20 hard drives to have a good reputation for such usage. The hard drives utilized traditional CMR  
21 technology. The SKU for the hard drives was WD40EFRX. Gravel installed the hard drives in  
22 the QNAP and set up the storage array with RAID 5 redundancy.

23 204. Gravel utilized the QNAP NAS for random-write intensive workloads including  
24 iSCSI volumes and mixed content file shares. He also used the QNAP as a media server to  
25 store and play movies which he owned. Gravel was happy with the performance of the hard  
26 drives in his QNAP. Gravel's only regret was that he had not purchased larger capacity hard  
27 drives, because he soon began running out of storage capacity.

28 205. A few months later, in December 2019, Gravel decided to expand his storage

1 capacity. Gravel purchased an external 4-bay QNAP expansion unit (the QNAP TR-004) that  
 2 externally connected directly to the QNAP TS-452Be NAS device via a USB-C cable, so he  
 3 could move his existing WD40EFRX drives to the expansion unit as a second storage array. He  
 4 planned to rebuild the first storage array in the main QNAP TS-452Be unit with four new larger  
 5 capacity NAS hard drives. Both of the arrays would be independently set up with RAID 5, and  
 6 both would be managed by the computing processor and software interface of the main QNAP  
 7 TS-452Be NAS device.

8 206. On December 14, 2019, Gravel went to Newegg.com to shop for four larger  
 9 hard drives that were purpose-built for NAS devices like his. Gravel was considering  
 10 purchasing either Seagate IronWolf NAS hard drives or more WD Red NAS hard drives. Both  
 11 the Seagate and Western Digital hard drives were advertised as having been designed and built  
 12 for NAS and RAID for devices with up to 8 drive bays.

13 207. Given Gravel's good experience with his current WD Red NAS drives, he  
 14 gravitated towards purchasing more WD Red NAS drives.

15 208. Gravel browsed the Newegg.com product webpage for the WD Red NAS 6TB  
 16 hard drive. Based on the advertising and representations on the product webpage, Gravel  
 17 reasonably assumed and understood that the WD Red NAS 6TB drive advertised there was  
 18 virtually identical in performance to his existing, and excellent performing, WD Red NAS 4TB  
 19 drives, but with 2TB greater capacity.

20 209. Gravel viewed the advertising and product information on the product webpage  
 21 (which was provided to Newegg by WDC). Gravel viewed the prominent bullet points on the  
 22 product webpage which stated: **"Specifically designed for use in NAS systems with up to 8**  
 23 **bays," "Small and home office NAS systems in a 24/7 environment," "NASware firmware**  
 24 **for compatibility," and "Supports up to 180TB/yr workload rate."**

25 210. Lower down on the product webpage for the WD Red NAS 6TB hard drive was  
 26 a colorful product brochure provided and created by WDC. Gravel viewed the representations  
 27 there, including: **"There's a leading edge WD Red drive for every compatible NAS system**  
 28 **to help fulfill your data storage needs... WD Red drives pack the power to store your**

1 **precious data in one powerhouse unit”; “The drive for NAS. Desktop drives aren’t**  
2 **typically tested or designed for the rigors of a NAS system. Do right by your NAS and**  
3 **choose the drive with an array of features to help preserve your data and maintain**  
4 **optimum performance”; and “Built for NAS Compatibility. WD Red drives with NASware**  
5 **3.0 technology are purpose-built to balance performance and reliability in NAS and**  
6 **RAID environments.”**

7 211. Based on these representations, Gravel reasonably believed and understood the  
8 WD Red NAS 6TB hard drive was specifically designed and built for NAS device RAID  
9 environments like his QNAP system, and that the drive would perform just as well in that  
10 environment as the WD Red NAS 4TB drives he had previously purchased only a couple of  
11 months earlier and which he was currently using.

12 212. Gravel had no idea that the WD Red NAS 6TB hard drive now being offered by  
13 Newegg in fact utilized inferior and inappropriate SMR technology, which WDC had snuck  
14 into the drives and which was not disclosed to him. Regardless, even if the letters “SMR” had  
15 appeared in the hard drive description, Gravel would not have known what SMR was or what it  
16 stood for or what if any impact SMR had on hard drive performance.

17 213. Relying on the representations regarding the WD Red NAS 6TB hard drive on  
18 the Newegg product webpage, and also based on his prior good experience with WD Red NAS  
19 hard drives, Gravel decided to purchase four WD Red NAS 6TB hard drives for \$539.96 plus  
20 tax. The SKU for the hard drives was WD60EFAX.

21 214. Gravel installed the hard drives into the QNAP main unit, replacing and  
22 removing the older 4TB WD40EFRX drives that had previously been installed there. Gravel  
23 continued to store the iSCSI volumes and mixed content file shares in the main unit on this  
24 RAID 5 storage array with the new 6TB WD60EFAX drives. Like before, this meant that he  
25 regularly and necessarily performed intensive random writes and reads on the drives.

26 215. Gravel noticed that the write and read performance on this new storage array  
27 was sluggish and very poor, in particular when being utilized for iSCSI and mixed content file  
28 shares. Workloads in general would perform more slowly than with the prior WD40EFRX

1 storage array, and he also noticed that large file transfers would start fast but then after a few  
2 minutes would bog down with poor and slow write performance. In short, Gravel found that the  
3 new WD Red NAS 6TB hard drive array (SKU WD60EFAX) was unable to adequately  
4 perform the same tasks and jobs that his older WD Red NAS 4TB hard drive array (SKU  
5 WD40EFRX) had readily and easily performed.

6 216. Gravel was puzzled and disappointed by this very poor performance. Gravel was  
7 unable to use the new hard drives for their intended and advertised purpose.

8 217. After Gravel had installed these poor-performing WD Red NAS 6TB hard  
9 drives in the QNAP, Gravel had moved his four older WD Red NAS 4TB drives (SKU  
10 WD40EFRX) to the QNAP TR-004 external 4-bay expansion unit. The expansion unit was  
11 connected externally to the main QNAP TS-452Be unit via a USB-C cable. Gravel set up a  
12 second RAID 5 array on these old WD Red NAS 4TB drives in the expansion unit.

13 218. Given the consistently poor, and puzzling, performance of the first RAID 5 array  
14 in the main QNAP unit with the new WD Red NAS 6TB hard drives, Gravel decided to move  
15 his iSCSI data and mixed content file share onto the second datastore on the external expansion  
16 unit containing his older WD40EFRX drives, given those older drives previously performed  
17 well with that workload.

18 219. Sure enough, once Gravel moved the iSCSI data and mixed content file share  
19 over to the expansion unit datastore with the older WD Red NAS 4TB drives, the performance  
20 improved dramatically to the same excellent level it had been before on those same  
21 WD40EFRX hard drives back when they had been installed in the main QNAP TS-452Be unit.  
22 Writes and reads and file transfers were no longer sluggish or choppy, and the performance was  
23 now consistent and excellent.

24 220. Gravel decided to repurpose the newer (and poor performing) WD Red NAS  
25 6TB datastore in the main QNAP unit for the lightweight and undemanding job of being a  
26 media server for playing movies that he owned. The drives were simply too poor performing  
27 for anything else.

28 221. In late April 2020, Gravel read an article on *Ars Technica* which discussed how

1 WDC had snuck inferior and inappropriate SMR technology into its new WD Red NAS hard  
2 drives, causing poor performance, hard disks to get knocked out of RAID arrays, and increased  
3 risk of data loss. After some further research, Gravel learned that WDC had recently admitted  
4 to the technology press that the WD Red NAS 6TB drives he purchased, with SKU  
5 WD60EFAX, were among these inferior SMR-technology drives. When Gravel read this, he  
6 thought to himself that this suddenly made a whole lot of sense. Now there was an explanation  
7 for the strangely terrible performance he had experienced with the WD60EFAX drives he  
8 purchased. The problems and poor performance he had observed were consistent with the  
9 problems and complaints about these SMR drives now being reported by the online press and  
10 by consumers in online comments.

11 222. Gravel had been defrauded. Gravel had bought the hard drives based on WDC's  
12 representations that the drives were purpose-built for NAS and RAID. But the hard drives he  
13 purchased, contrary to WDC's express representations, were not appropriate for NAS or RAID,  
14 and were not appropriate for sustained random writes or usage in iSCSI datastores. Gravel was  
15 unable to use the new hard drives for their intended and advertised purpose.

16 223. Gravel was also upset about the increased risk of losing his video and movie  
17 files stored on the SMR WD Red NAS 6TB drives. The failure of a single drive could result in  
18 the loss of data due to poorer performance in RAID rebuilds, where a second drive could fail or  
19 drop out of the array like other purchasers had reported happened to them.

20 224. Gravel reasonably relied on WDC's misrepresentations and omissions of  
21 material facts. If Gravel had known that the WD Red NAS hard drives he purchased utilized  
22 recording technology which was inappropriate for their intended and advertised use, Gravel  
23 would not have purchased the hard drives. Gravel would have purchased different CMR-  
24 technology hard drives that were truly appropriate for NAS and RAID use instead.

25 225. As a direct and proximate result of WDC's acts and omissions, Gravel was  
26 harmed, suffered an injury-in-fact, and lost money or property.

27 226. Gravel would purchase WD NAS hard drives again if he could have confidence  
28 regarding the truth of WDC's representations regarding the drives' appropriateness and fitness

1 for NAS systems and RAID.

2 227. Gravel will be harmed if, in the future, he is left to guess as to whether WDC's  
3 representations are accurate and whether there are omissions of material facts regarding the  
4 features or specifications of WDC's NAS hard drives.

5 **Plaintiff James Raaymakers**

6 228. Plaintiff James Raaymakers is, and at all relevant times has been, a citizen and  
7 resident of California.

8 229. On May 1, 2020, Raaymakers visited TigerDirect.com to shop for a hard drive  
9 to back up his home office computer system. Raaymakers had installed the VMware ESXi  
10 virtualization hypervisor on a PC. He had set up and was constantly running three "virtual"  
11 Windows servers on the system including an LDAP server, an email server, and a shared  
12 fileserver which contained many thousands of small files.

13 230. Raaymakers was in need of a reliable and high-performance business-class hard  
14 drive to install in the ESXi server to utilize as a datastore for regular file backups and for ESXi  
15 virtual machine snapshot backups. He had run out of room on the existing 2TB hard drive he  
16 had installed as such a datastore.

17 231. Raaymakers searched on TigerDirect.com for a 6TB NAS hard drive, and came  
18 to the product webpage for the WD Red NAS 6TB hard drive.

19 232. Raaymakers viewed the statements and bullet points on the product webpage  
20 which indicated the drive was appropriate for heavy and sustained home-office or business use,  
21 including: **"WD Red can share and backup files at the speed of your business," "Supports**  
22 **up to 180TB/yr workload rate," "Small and home office NAS systems in a 24/7**  
23 **environment,"** and **"NASware firmware for compatibility."**

24 233. Raaymakers had no idea the hard drive in fact utilized inferior and inappropriate  
25 SMR technology, which was not disclosed to him or stated anywhere on the product webpage.

26 234. Relying on the representations regarding the WD Red NAS 6TB hard drive on  
27 the TigerDirect webpage, Raaymakers decided to purchase one WD Red NAS 6TB hard drive  
28 for \$179.99 plus tax. The SKU for the hard drive was WD60EFAX.

1           235. After receiving the WD Red NAS hard drive, Raaymakers installed it in his PC  
2 and set it up as an ESXi datastore.

3           236. Raaymakers encountered many problems with the new hard drive and the ESXi  
4 virtual datastore located on the drive.

5           237. First, the unlike the datastores on the prior 2TB hard drives he had utilized, the  
6 datastore on this new WD Red NAS hard drive repeatedly disconnected from Mr. Raaymakers'  
7 virtual servers. Raaymakers started a large backup process of copying thousands of small files  
8 onto an ESXi datastore located on the hard drive. However, the backup and copying process  
9 was excruciatingly slow, and after two days, the process stalled out and failed.

10           238. Raaymakers had never previously experience such problems and poor  
11 performance with the prior hard drives he had installed and used as ESXi datastores and backup  
12 storage in the PC. Previously, on other hard drives, such copy processes only took a few hours  
13 to complete.

14           239. Ayers had been defrauded. In fact, unbeknownst to Raaymakers, the  
15 WD60EFAX drive utilized inferior and inappropriate SMR technology. This technology was  
16 inappropriate for use in ESXi datastores, virtual machine backup snapshots, or writing of  
17 thousands of small files, because sustained heavy and/or random writes cause the small CMR  
18 cache zone to fill up and for the drive to “choke” while waiting for the very slow SMR disk  
19 writing process. This caused the unacceptable performance Raaymakers experienced.

20           240. Raaymakers is unable to use the WD Red NAS 6TB drive at all in his ESXi  
21 virtual server environment. Raaymakers has disconnected the drive from his system and it is  
22 currently sitting unused.

23           241. Raaymakers reasonably relied on WDC’s misrepresentations and omissions of  
24 material facts. If Raaymakers had known that the WD Red NAS hard drive he purchased  
25 utilized recording technology which was inappropriate for its intended and advertised purpose,  
26 Raaymakers would not have purchased the hard drive. Raaymakers would have purchased a  
27 different CMR-technology hard drive that was truly appropriate for NAS and ESXi datastore  
28 usage.



242. As a direct and proximate result of WDC's acts and omissions, Raaymakers was harmed, suffered an injury-in-fact, and lost money or property.

243. Raaymakers would purchase a WD NAS hard drive again if he could have confidence regarding the truth of WDC's representations regarding the drive's appropriateness and fitness for its intended and advertised purpose.

244. Raaymakers will be harmed if, in the future, he is left to guess as to whether WDC's representations are accurate and whether there are omissions of material facts regarding the features or specifications of WDC's NAS hard drives.

245. **Plaintiff Tod Weitzel**

246. Plaintiff Tod Weitzel is, and at all relevant times has been, a citizen and resident of Sunnyvale, California.

247. In June 2018, Weitzel purchased a Dell PC with a hardware RAID card. Weitzel set up the PC as a FreeNAS network attached storage server for his home use, with six hard drives set up in a ZFS storage pool.

248. Weitzel used the FreeNAS server to store and access personal files and media, and also to run virtual machines (software emulations of physical computers).

249. By April 2020, Weitzel had populated the FreeNAS server ZFS storage pool with five WD Red NAS 4TB hard drives (SKU WD40EFRX), and one WD Red NAS 3TB hard drive (SKU WD30EFRX). All of these WD Red NAS hard drives utilized traditional CMR technology.

250. However, the storage pool of the FreeNAS server was almost full, and Weitzel decided to replace the sole 3TB hard drive with another WD Red NAS 4TB hard drive to add more capacity.

251. Weitzel had previously purchased WD Red NAS hard drives because they were advertised as being "purpose-built" for NAS devices and FreeNAS ZFS pools, and he understood WD Red NAS hard drives to have a good reputation for such usage. Weitzel also knew and relied on the fact that the creator of the FreeNAS storage software, iXsystems, was a vendor partner of WDC and that iXsystems explicitly recommended WD Red NAS hard drives

1 for use in FreeNAS systems. In fact, many of the FreeNAS hardware systems which iXsystems  
2 itself manufactured and offered for sale on its website came pre-populated with WD Red NAS  
3 hard drives. Meanwhile, Weitzel had been happy with his WD Red NAS hard drives and their  
4 performance in his existing FreeNAS ZFS storage pool.

5 252. Based on his prior good experience with WD Red NAS hard drives and WDC's  
6 promotion and advertising of the hard drives for NAS systems like his, Weitzel desired to  
7 purchase another WD Red NAS 4TB drive.

8 253. On April 14, 2020, Weitzel visited eBay.com to purchase another WD Red NAS  
9 4TB hard drive. Weitzel navigated to an eBay product webpage for the drive. The description  
10 contained a manufacturer-provided image of the hard drive titled "WD RED 3.5" NAS HARD  
11 DRIVE," and stated the hard drive was "new" and was a "Western Digital NAS WD40EFAX  
12 4TB SATA 256M Cache 3.5" WD Red." Weitzel reasonably assumed and understood that this  
13 WD Red NAS 4TB drive was virtually identical in performance to his existing, and excellent  
14 performing, five other WD Red NAS 4TB drives, and that as WDC advertised for all its WD  
15 Red NAS hard drives, the hard drive was "purpose-built" for NAS and FreeNAS systems like  
16 his.

17 254. Weitzel had no idea the WD Red NAS 4TB hard drive in fact utilized inferior  
18 and inappropriate SMR technology, which was not disclosed to him.

19 255. Relying on the representations regarding the WD Red NAS 4TB hard drive, and  
20 based on his prior good experience with WD Red NAS hard drives and WDC's promotion and  
21 advertising of the hard drives for NAS systems like his, Weitzel purchased the hard drive for  
22 \$115.00 plus tax.

23 256. Weitzel received the hard drive on April 16, 2020. He then replaced the WD  
24 Red NAS 3TB drive in his storage pool with this new hard drive and began the resilvering  
25 process. While the ZFS pool was still in the resilvering process, Weitzel saw and read the *Ars*  
26 *Technica* article which discussed how WDC had recently snuck inferior and inappropriate SMR  
27 technology into its WD Red NAS hard drives, causing poor performance, hard disks to get  
28 knocked out of RAID arrays, and increased risk of data loss particularly during the resilvering

1 process. Weitzel then learned that the WD Red NAS 4TB drive he purchased (SKU  
2 WD40EFAX), which was currently in the middle of the resilvering process, was among these  
3 inferior SMR-technology drives.

4 257. In addition to being upset after learning of the poor drive performance, Weitzel  
5 became very concerned that the resilvering process may fail and that he could suffer data loss.

6 258. Thankfully, the resilvering process finally completed.

7 259. However, after the drive was integrated and the ZFS array resilvering process  
8 had completed, Weitzel now experienced terrible read and write performance in his ZFS pool.

9 260. For example, reading and opening files became much slower than it used to be  
10 prior to adding the WD40EFAX drive, especially for folders with large amounts of files. A  
11 shared folder that used to take about 12 seconds to display all the file contents, now took up to  
12 45 seconds. Weitzel also operated a Nextcloud virtual machine instance (a local file sharing  
13 software platform) on the FreeNAS system. The Nextcloud operations likewise were now  
14 significantly slower and often sputtered. Weitzel also used a Plex media server stored on the  
15 FreeNAS system for recording and playing back over-the-air TV. The performance became  
16 abysmal, such that the data would stall when recording and then stop altogether such that  
17 recording video became impossible. Video and media playback was also plagued with  
18 intermittent buffering and stops and starts.

19 261. Over the next few weeks, Weitzel became increasingly frustrated with the now-  
20 terrible performance of the ZFS pool. Weitzel purchased a Seagate IronWolf NAS 4TB drive to  
21 replace the poor-performing (and virtually unusable) WD Red NAS SMR-technology drive.  
22 Weitzel knew that all Seagate NAS-labeled drives exclusively used CMR technology like his  
23 older WD Red NAS drives had. Weitzel had read in another *Ars Technica* article that Seagate  
24 had publicly affirmed that “Seagate only produces NAS drives that are CMR. We do not have  
25 any SMR drives in our IronWolf and IronWolf Pro drives, which are NAS solutions...[W]e  
26 don’t recommend SMR for NAS.”<sup>61</sup>

27 \_\_\_\_\_  
28 <sup>61</sup> See <https://arstechnica.com/information-technology/2020/04/seagate-says-network-attached-storage-and-smr-dont-mix/>.

1           262. On May 31, 2020, Weitzel replaced the SMR-technology WD Red NAS 4TB  
2 (SKU WD40EFAX) drive with the IronWolf NAS 4TB drive. With the WD40EFAX removed,  
3 the resilvering process completed within a few hours without issue.

4           263. After the resilvering process for the FreeNAS ZFS disk array had completed,  
5 Weitzel immediately noticed that the disk performance had dramatically improved. The  
6 performance had returned back to the excellent level it had been prior to having added the (now  
7 removed) SMR-technology WD40EFAX hard drive.

8           264. Notably, since WDC publicly admitted in late April 2020 that certain SKUs of  
9 its WD Red NAS hard drives now contained SMR technology<sup>62</sup>, iXsystems (the developer of  
10 the FreeNAS software that Weitzel utilizes on his server) now states that SMR WD Red NAS  
11 drives are not compatible with FreeNAS and ZFS, and iXsystems recommends that FreeNAS  
12 users not install SMR WD Red NAS drives in their FreeNAS systems.

13           265. Weitzel had been defrauded. Weitzel felt betrayed and taken advantage of by  
14 WDC. WDC had tricked Weitzel into relying on the past reputation and performance of WD  
15 Red NAS drives. WDC had secretly snuck the inferior SMR-technology into the drives to  
16 increase its short-term profits while exploiting customers like Weitzel whom WDC kept in the  
17 dark. WDC had continued to promise and advertise that the WD Red NAS hard drives he  
18 purchased were designed for NAS and storage devices like his FreeNAS server. But the SMR  
19 hard drives he purchased were not appropriate for NAS devices or storage servers, and in fact  
20 WDC's vendor-partner iXsystems now states that the SMR drives are inappropriate for use in  
21 FreeNAS systems like Weitzel's.

22           266. In fact, the SMR-technology WD Red NAS 4TB hard drive that Weitzel  
23 purchased was useless and completely worthless for its intended purpose. This drive now sits in  
24 a box on the floor next to Weitzel's FreeNAS server.

25           267. Weitzel reasonably relied on WDC's misrepresentations and omissions of  
26 material facts. If Weitzel had known that the WD Red NAS hard drive he purchased utilized

27 \_\_\_\_\_  
28 <sup>62</sup> Specifically, the following SKUs: WD20EFAX, WD30EFAX, WD40EFAX and WD60EFAX.

1 recording technology which was inappropriate for its intended and advertised use, Weitzel  
 2 would not have purchased the hard drive. Weitzel would have purchased a different CMR-  
 3 technology hard drive (such as the IronWolf NAS 4TB drive he later purchased to replace it),  
 4 which was truly appropriate for use in a FreeNAS server.

5 268. As a direct and proximate result of WDC's acts and omissions, Weitzel was  
 6 harmed, suffered an injury-in-fact, and lost money or property.

7 269. Weitzel would purchase WD NAS hard drives again if he could have confidence  
 8 regarding the truth of WDC's representations regarding the drives' appropriateness and fitness  
 9 for NAS systems, RAID, and FreeNAS drive arrays.

10 270. Weitzel will be harmed if, in the future, he is left to guess as to whether WDC's  
 11 representations are accurate and whether there are omissions of material facts regarding the  
 12 features or specifications of WDC's NAS hard drives.

### 13 CLASS ACTION ALLEGATIONS

14 271. Plaintiffs Nicholas Malone, Chris Ayers, James Backus, Brian Conway, David  
 15 Eaton, Steven Gravel, James Raaymakers and Tod Weitzel (collectively, "Plaintiffs") hereby  
 16 each brings this lawsuit on behalf of himself and all others similarly situated pursuant to  
 17 Federal Rules of Civil Procedure 23(b)(2) and (b)(3).

18 272. Plaintiffs seek to represent the following nationwide Class:

19 **All United States residents who, during the applicable**  
 20 **limitations period, either (a) purchased from any seller any**  
 21 **Western Digital Red NAS hard drive with SMR technology, or**  
 22 **(b) received from Western Digital a replacement Red NAS**  
 23 **hard drive with SMR technology.**

24 273. Plaintiffs James Raaymakers and Tod Weitzel also seek to represent a subclass  
 25 of all Class Members who purchased or received a replacement WD Red NAS Drive in the  
 26 State of California (the "California Subclass").

27 274. Plaintiff Chris Ayers also seeks to represent a subclass of all Class Members  
 28 who purchased or received a replacement WD Red NAS Drive in the State of Florida (the  
 "Florida Subclass").

275. Plaintiff Brian Conway also seeks to represent a subclass of all Class Members

1 who purchased or received a replacement WD Red NAS Drive in the State of Massachusetts  
2 (the “Massachusetts Subclass”).

3 276. Plaintiff David Eaton also seeks to represent a subclass of all Class Members  
4 who purchased or received a replacement WD Red NAS Drive in the State of Missouri (the  
5 “Missouri Subclass”).

6 277. Plaintiff Steven Gravel also seeks to represent a subclass of all Class Members  
7 who purchased or received a replacement WD Red NAS Drive in the State of New York (the  
8 “New York Subclass”).

9 278. Plaintiff James Backus also seeks to represent a subclass of all Class Members  
10 who purchased or received a replacement WD Red NAS Drive in the State of Virginia (the  
11 “Virginia Subclass”).

12 279. Plaintiff Nicholas Malone also seeks to represent a subclass of all Class  
13 Members who purchased or received a replacement WD Red NAS Drive in the State of  
14 Wisconsin (the “Wisconsin Subclass”).

15 280. The nationwide Class and the various Subclasses shall be collectively referred to  
16 as the “Classes.”

17 281. Specifically excluded from the Classes are Defendant, any entity in which a  
18 Defendant has a controlling interest or which has a controlling interest in Defendant,  
19 Defendant’s agents and employees and attorneys, the bench officers to whom this civil action is  
20 assigned, and the members of each bench officer’s staff and immediate family.

21 282. **Numerosity.** The Plaintiffs do not know the exact number of members of the  
22 Classes. That being said, Plaintiffs are informed and believe that the Classes easily comprise  
23 tens of thousands of persons, while each subclass comprises one thousand or more individuals.  
24 In any event, the members of the Class and each subclass are so numerous that joinder of all  
25 members is impracticable.

26 283. **Commonality and Predominance.** Well-defined, identical legal or factual  
27 questions affect the members of the Classes. All claims in this matter arise from the identical  
28 written advertising and omissions of material facts regarding the WD Red NAS hard drives

1 purchased by the members of the Classes. These questions predominate over questions that  
 2 might affect individual class members. These common questions include, but are not limited  
 3 to:

4 (a) whether Defendant misrepresented and/or failed to disclose material facts  
 5 concerning the WD Red NAS hard drives;

6 (b) whether Defendant's conduct was unfair and/or deceptive;

7 (c) whether Defendant has been unjustly enriched as a result of the unlawful  
 8 conduct alleged in this Complaint such that it would be inequitable for Defendant to retain the  
 9 benefits conferred upon Defendant by Plaintiffs and the Classes;

10 (d) whether Plaintiffs and the Classes sustained damages with respect to the  
 11 common law claims asserted, and if so, the proper measure of their damages;

12 (e) whether Defendant violated the various consumer protection statutes applicable  
 13 to the Class and/or to each of the Subclasses;

14 (f) whether Defendant should be enjoined from further engaging in the misconduct  
 15 alleged herein; and

16 (g) whether Plaintiffs and the Classes are entitled to an order for injunctive relief.

17 284. **Typicality.** Each Plaintiff is a member of the Class which that Plaintiff seeks to  
 18 represent. Each Plaintiff representing a subclass is a member of that subclass. The claims of  
 19 each Plaintiff are typical of all members of the Class and/or of the Plaintiff's subclass.

20 285. All of the claims alleged by each Plaintiff, on behalf of themselves individually  
 21 and on behalf of the Classes, arise from the same misrepresentations and omissions of material  
 22 fact.

23 286. All of the claims alleged by each Plaintiff, on behalf of themselves individually  
 24 and on behalf of the Classes, are based on the same legal theories.

25 287. **Adequacy.** Plaintiffs will fairly and adequately protect the interests of the  
 26 Classes and have retained counsel that is experienced in litigating complex class actions.  
 27 Plaintiffs have no interests which conflict with those of the Classes.

28 288. A class action is superior to all other available methods for fairly and efficiently



1 adjudicating this controversy. The prosecution of separate civil actions by individual members  
 2 of the Classes would create a risk of inconsistent or varying adjudications with respect to  
 3 individual members of the Classes which would establish incompatible standards of conduct for  
 4 the party opposing the Classes.

5 289. Further, each Class and Subclass member's interests are small compared to the  
 6 burden and expense required to litigate each of their claims individually, so it would be  
 7 impractical and would not make economic sense for class members to seek individual redress  
 8 for Defendant's conduct. Individual litigation would add administrative burden on the courts,  
 9 increasing the delay and expense to all parties and to the court system. Individual litigation  
 10 would also create the potential for inconsistent or contradictory judgments regarding the same  
 11 uniform conduct. A single adjudication would create economies of scale and comprehensive  
 12 supervision by a single judge. Moreover, Plaintiffs do not anticipate any difficulties in  
 13 managing a class action trial.

14 290. By its conduct and omissions alleged herein, Defendant has acted and refused to  
 15 act on grounds that apply generally to the Class and each Subclass, such that final injunctive  
 16 relief and/or declaratory relief is appropriate with respect to the Class or Subclasses as a whole.

## 17 CAUSES OF ACTION

### 18 COUNT I

#### 19 **Violation of California's Consumers Legal Remedies Act** 20 **California Civil Code § 1750 *et seq.***

21 291. Plaintiffs reallege and incorporate by reference all paragraphs previously alleged  
 22 herein.

23 292. Plaintiffs bring this claim individually and on behalf of the members of the  
 24 Classes against Defendant.

25 293. Defendant is a "person," as defined by California Civil Code § 1761(c).

26 294. Plaintiffs and members of the Classes are "consumers," as defined by California  
 27 Civil Code § 1761(d).

28 295. The WD Red NAS hard drives purchased by the Plaintiffs and the members of

1 the Classes are “goods” as defined by California Civil Code § 1761(a).

2 296. The purchases by the Plaintiffs and the members of the Classes constitute  
3 “transactions,” as defined by California Civil Code § 1761(e).

4 297. The unlawful methods, acts or practices alleged herein to have been undertaken  
5 by Defendant were all committed intentionally and knowingly. The unlawful methods, acts or  
6 practices alleged herein to have been undertaken by Defendant did not result from a *bona fide*  
7 error notwithstanding the use of reasonable procedures adopted to avoid such error.

8 298. With regard to this count of the pleading which alleges one or more violations of  
9 the CLRA, venue is proper in the state or federal court having jurisdiction over Santa Clara  
10 County, California (the county in which this action has been commenced) pursuant to Section  
11 1780(d) of the California Civil Code because, without limitation, Santa Clara County is a  
12 county in which Defendant is doing business and is the county in which Defendant is  
13 headquartered. A declaration establishing that this Court has proper venue for this count is  
14 attached hereto as **Exhibit A**.

15 299. Defendant’s methods, acts and/or practices, including Defendant’s  
16 misrepresentations, omissions, active concealment, and/or failures to disclose, violated and  
17 continue to violate the CLRA in ways including, but not limited to, the following:

18 a. Defendant misrepresented that its products had characteristics, benefits,  
19 or uses that they did not have (Cal. Civ. Code § 1770(a)(5));

20 b. Defendant misrepresented that its products were of a particular standard,  
21 quality, grade, or of a particular style or model when the products were of another (Cal. Civ.  
22 Code § 1770(a)(7));

23 c. Defendant advertised its products with an intent not to sell them as  
24 advertised (Cal. Civ. Code § 1770(a)(9)); and

25 d. Defendant represented that its products were supplied in accordance with  
26 previous representations when they were not (Cal. Civ. Code § 1770(a)(16)).

27 300. Specifically, Defendant advertised and represented that these WD Red NAS  
28 hard drives were suitable for the particular purpose of NAS and RAID, when in fact the hard

1 drives were not suitable for that purpose and were actually outright dangerous when used for  
2 that purpose.

3 301. With respect to omissions, Defendant at all relevant times had a duty to disclose  
4 the information in question because, *inter alia*: (a) Defendant had exclusive knowledge of  
5 material information that was not known to Plaintiffs and the Classes; (b) Defendant concealed  
6 material information from Plaintiffs and the Classes; and/or (c) Defendant made partial  
7 representations which were false and misleading absent the omitted information.

8 302. Defendant's misrepresentations and nondisclosures deceive and have a tendency  
9 and ability to deceive the general public.

10 303. Defendant's misrepresentations and nondisclosures are material, in that a  
11 reasonable person would attach importance to the information and would be induced to act on  
12 the information in making purchase decisions. Indeed, the utility and value of Defendant's WD  
13 Red NAS hard drives with SMR technology are significantly reduced, to the point of  
14 worthlessness, because these drives should not and cannot be used for their intended and  
15 advertised purpose of NAS or RAID.

16 304. As a direct and proximate result of Defendant's unfair, unlawful, and fraudulent  
17 conduct, Plaintiffs and the Classes suffered injury-in-fact and lost money.

18 305. But for Defendant's deceptive conduct and omissions of material facts, Plaintiffs  
19 and the Classes would not have purchased the subject hard drives and/or would have purchased  
20 an appropriate CMR-technology hard drive from one of Defendant's competitors instead.  
21 Defendant's conduct as alleged herein caused substantial injury to Plaintiffs, class members,  
22 and the public. Defendant's conduct is ongoing and will continue and recur absent a permanent  
23 injunction. Accordingly, Plaintiffs and the Classes seek an order enjoining Defendant from  
24 committing such practices.

25 306. If not enjoined by order of this Court, Defendant is free to resume its unlawful  
26 behavior and injure Plaintiffs and consumers through the misconduct alleged herein once more.  
27 Defendant has a duty to speak truthfully or in a non-misleading manner.

28 307. Plaintiffs would purchase WD NAS hard drives again if they could have

1 confidence regarding the truth of WDC's representations regarding their appropriateness and  
2 fitness for NAS systems and RAID.

3 308. Plaintiffs will be harmed if, in the future, they are left to guess as to whether  
4 WDC's representations are accurate and whether there are omissions of material facts regarding  
5 the features or specifications of WDC's NAS hard drives.

6 309. If Plaintiffs were to purchase a WD Red NAS hard drive again without WDC  
7 having changed its unlawful and deceptive conduct alleged herein, Plaintiffs would be harmed  
8 on an ongoing basis and/or would be harmed once or more in the future.

9 310. In order to prevent injury to the general public, Plaintiffs, in their individual  
10 capacities, seek a public injunction requiring WDC to stop advertising, and to instruct its  
11 resellers to stop advertising, any hard drives with drive-managed SMR technology as being  
12 appropriate for NAS devices or RAID (including by removing "NAS" from such products'  
13 names).

14 311. The balance of the equities favors the entry of permanent injunctive relief  
15 against Defendant. Plaintiffs and the general public will be irreparably harmed absent the entry  
16 of permanent injunctive relief against Defendant. Plaintiffs and the general public lack an  
17 adequate remedy at law. A permanent injunction against Defendant is in the public interest.  
18 Defendant's unlawful behavior is capable of repetition or re-occurrence absent the entry of a  
19 permanent injunction.

20 312. In accordance with California Civil Code § 1782(a), on June 16, 2020,  
21 Plaintiffs' counsel served Defendant with notices of its CLRA violations on behalf of Plaintiffs.

22 313. Defendant failed to give, or to agree to give within a reasonable time, an  
23 appropriate correction, repair, replacement, or other remedy for its CLRA violations within 30  
24 days of its receipt of the CLRA demand notices. Defendant has continued to fail to give, or to  
25 agree to give within a reasonable time, an appropriate correction, repair, replacement, or other  
26 remedy for its CLRA violations. Accordingly, pursuant to Sections 1780 and 1782(b) of the  
27 CLRA, Plaintiffs are entitled to recover actual damages, punitive damages, attorneys' fees and  
28 costs, and any other relief the Court deems proper for Defendant's CLRA violations.

**COUNT II**  
**Violation of California's False Advertising Law**  
**California Business and Professions Code § 17500 *et seq.***

314. Plaintiffs reallege and incorporate by reference all paragraphs previously alleged herein.

315. Plaintiffs bring this claim individually and on behalf of the members of the Classes against Defendant.

316. Defendant has engaged in false or misleading advertising in violation of California's statutory False Advertising Law ("FAL").

317. Defendant's conduct as described herein is misleading, and/or has a capacity, likelihood or tendency to deceive reasonable consumers.

318. Defendant, with intent directly or indirectly to dispose of personal property or to perform services, or to induce the public to enter into any obligation relating thereto, makes, disseminates, has made or disseminated, causes to be made or disseminated, and/or has caused to be made or disseminated, before the public in California, in newspaper or other publication, or other advertising device, or by public outcry or by proclamation, or in any other manner or means, including over the internet, statements concerning that personal property or those services, and/or concerning any circumstance or matter of fact connected with the proposed performance or disposition thereof, which are untrue or misleading and which are known (or which by the exercise of reasonable care should be known) to be untrue or misleading.

319. Defendant made, disseminated, makes, disseminates, caused to be made or disseminated and/or causes to be made or disseminated any statements concerning the disposition of personal property or the performance of services, and/or concerning any circumstance or matter of fact connected with such statement as part of a plan or scheme with the intent not to sell that personal property or those services, professional or otherwise, as advertised.

320. With respect to omissions, Defendant at all relevant times had a duty to disclose the information in question because, *inter alia*: (a) Defendant had exclusive knowledge of material information that was not known to Plaintiffs and the Classes; (b) Defendant concealed

1 material information from Plaintiffs and the Classes; and/or (c) Defendant made partial  
 2 representations which were false and misleading absent the omitted information.

3 321. Defendant committed such violations of the False Advertising Law with actual  
 4 knowledge that its advertising was misleading, or Defendant, in the exercise of reasonable care,  
 5 should have known that its advertising was misleading.

6 322. Plaintiffs and the Classes reasonably relied on Defendant's representations  
 7 and/or omissions made in violation of the False Advertising Law.

8 323. As a direct and proximate result of Defendant's unfair, unlawful, and fraudulent  
 9 conduct, Plaintiffs and each member of the Classes suffered injury-in-fact and lost money.

10 324. But for Defendant's deceptive conduct and omissions of material facts, Plaintiffs  
 11 and the Classes would not have purchased the subject hard drives and/or would have purchased  
 12 an appropriate hard drive from one of Defendant's competitors instead.

13 325. Defendant should be ordered to disgorge or make restitution of all monies  
 14 improperly accepted, received, or retained.

15 326. Defendant's conduct has caused substantial injury to Plaintiffs, members of the  
 16 Classes, and the public. Defendant's conduct is ongoing and will continue and recur absent a  
 17 permanent injunction. Accordingly, Plaintiffs seek an order enjoining Defendant from  
 18 committing such violations of the FAL. Plaintiffs further seek an order granting restitution to  
 19 Plaintiffs and the Classes in an amount to be proven at trial. Plaintiffs further seek an award of  
 20 attorneys' fees and costs under Cal. Code Civ. Proc. § 1021.5.

21 327. Plaintiffs, on behalf of themselves and the Classes, seek injunctive relief to  
 22 require Defendant to: (1) provide notice to every class member that the WD Red NAS hard  
 23 drive they purchased is not suited for its intended purpose; and (2) either provide a refund to  
 24 Plaintiffs and the Class for their WD Red NAS hard drives in an amount to be determined at  
 25 trial, or provide Plaintiffs and the Class with brand-new replacement CMR-technology hard  
 26 drives that are truly suited for use with NAS devices and RAID, at no additional cost.

27 328. Absent injunctive relief, Defendant will continue to injure Plaintiffs and the  
 28 class members. Even if such conduct were to cease, it is behavior that is capable of repetition or

1 reoccurrence by Defendant.

2 329. In order to prevent injury to the general public, Plaintiffs, in their individual  
3 capacities, seek a public injunction requiring WDC to stop advertising, and to instruct its  
4 resellers to stop advertising, any hard drives with drive-managed SMR technology as being  
5 appropriate for NAS devices or RAID (including by removing “NAS” from such products’  
6 names).

7 330. Plaintiffs and the general public lack an adequate remedy at law to remedy  
8 and/or mitigate the totality of the injuries and misconduct described herein.

9 **COUNT III**  
10 **Violation of California’s Unfair Competition Law**  
**California Business and Professions Code § 17200 *et seq.***

11 331. Plaintiffs reallege and incorporate by reference all paragraphs previously alleged  
12 herein.

13 332. Plaintiffs bring this claim individually and on behalf of the members of the  
14 Classes against Defendant.

15 333. Defendant’s acts and omissions alleged herein constitute unfair competition  
16 and/or unlawful, unfair, or fraudulent business practices in violation of California Business and  
17 Professions Code § 17200 *et seq.* (the “Unfair Competition Law” or “UCL”).

18 334. Defendant’s conduct and omissions alleged herein are immoral, unethical,  
19 oppressive, unscrupulous, unconscionable, and/or substantially injurious to Plaintiffs and the  
20 Classes. There is no utility to Defendant’s conduct, and even if there were any utility, it would  
21 be significantly outweighed by the gravity of the harm to consumers caused by Defendant’s  
22 conduct alleged herein.

23 335. Defendant’s conduct and omissions alleged herein also violate California public  
24 policy, including as such policy is reflected in Cal. Civ. Code § 1750 *et seq.* and Cal. Civ. Code  
25 §§ 1709-1710.

26 336. By its conduct and omissions alleged herein, Defendant has violated the  
27 “unlawful” prong of the UCL, including by making material misrepresentations and omissions  
28 in violation of Cal. Bus. & Prof. Code § 17500 *et seq.* and Cal. Civ. Code § 1750, *et seq.*; and



1 engaging in deceit and fraudulent concealment in violation of Cal Civ. Code §§ 1709-1710, *et*  
2 *seq.*

3 337. With respect to omissions, Defendant at all relevant times had a duty to disclose  
4 the information in question because, *inter alia*: (a) Defendant had exclusive knowledge of  
5 material information that was not known to Plaintiffs and the Classes; (b) Defendant concealed  
6 material information from Plaintiffs and the Classes; and/or (c) Defendant made partial  
7 representations which were false and misleading absent the omitted information.

8 338. Defendant's material misrepresentations and nondisclosures were likely to  
9 mislead reasonable consumers, existing and potential customers, and the public.

10 339. Defendant's nondisclosures and omissions of material facts deceive and have a  
11 tendency to deceive the general public and reasonable consumers, and therefore were unfair  
12 and fraudulent.

13 340. Defendant's nondisclosures and omissions of material facts are material, such  
14 that a reasonable person would attach importance to the information and would be induced to  
15 act on the omissions in making purchase decisions.

16 341. Plaintiffs and members of the Classes reasonably relied on Defendant's  
17 nondisclosures and omissions of material facts.

18 342. By its conduct and omissions alleged herein, Defendant received more money  
19 from Plaintiffs and the Classes than it should have received, and that money is subject to  
20 restitution.

21 343. As a direct and proximate result of Defendant's unfair, unlawful, and fraudulent  
22 conduct, Plaintiffs and the Classes suffered injury-in-fact and lost money.

23 344. But for Defendant's deceptive conduct and omissions of material facts, Plaintiffs  
24 and the Classes would not have purchased the subject hard drives and/or would have purchased  
25 an appropriate hard drive from one of Defendant's competitors instead.

26 345. Each Plaintiff, on behalf of himself and the Classes, seeks injunctive relief to  
27 require Defendant to: (1) provide notice to every class member that the WD Red NAS hard  
28 drive they purchased is not suited for its intended purpose; and (2) either provide a refund to

1 Plaintiffs and the Class for their WD Red NAS hard drives in an amount to be determined at  
 2 trial, or provide Plaintiffs and the Classes with brand-new replacement CMR-technology hard  
 3 drives that are truly suited for use with NAS devices and RAID, at no additional cost.

4 346. Defendant's conduct has caused substantial injury to Plaintiffs, class members,  
 5 and the public. Defendant's conduct is ongoing and will continue absent a permanent  
 6 injunction. Accordingly, Plaintiffs seek an order enjoining Defendant from committing such  
 7 unlawful, unfair, and fraudulent business practices. Plaintiffs further seek an order granting  
 8 restitution to Plaintiffs and the Class in an amount to be proven at trial. Plaintiffs further seek  
 9 an award of attorneys' fees and costs under Cal. Code Civ. Proc. § 1021.5.

10 347. Plaintiffs and the general public lack an adequate remedy at law to remedy  
 11 and/or mitigate the totality of the injuries and misconduct described herein.

12 348. Absent injunctive relief, Defendant will continue to injure Plaintiffs and the  
 13 class members. Defendant's conduct and omissions of material fact are ongoing. And, even if  
 14 such conduct were to cease, it is behavior that is capable of repetition or reoccurrence by  
 15 Defendant.

16 349. In order to prevent injury to the general public, Plaintiffs, in their individual  
 17 capacities, seek a public injunction requiring WDC to stop advertising, and to instruct its  
 18 resellers to stop advertising, any hard drives with drive-managed SMR technology as being  
 19 appropriate for NAS devices or RAID (including by removing "NAS" from such products'  
 20 names).

21 **COUNT IV**  
**Violation of the Florida Deceptive and Unfair Trade Practices Act**  
**Fla. Stat. §§ 501.201, *et seq.***

22 350. Plaintiffs reallege and incorporate by reference all paragraphs previously alleged  
 23 herein.

24 351. Plaintiff Chris Ayers brings this claim on behalf individually and on behalf of  
 25 the members of the Florida Subclass against Defendant.

26 352. Plaintiff Chris Ayers is a "consumer" as defined by Florida Statutes §  
 27 501.203(7). Defendant is engaged in "trade or commerce" as defined by Florida Statutes §  
 28

1 501.203(8) when, without limitation, Defendant engages in advertising, soliciting, providing,  
2 offering or distributing, whether by sale or rental or otherwise, of any good or service—in this  
3 case, the advertising of Defendant’s WD Red NAS hard drives.

4 353. By engaging in the acts and omissions alleged above and incorporated herein,  
5 Defendant has engaged and continues to engage in unfair methods of competition,  
6 unconscionable acts or practices, and unfair or deceptive acts or practices in the conduct of a  
7 trade or commerce.

8 354. Defendant’s misconduct was likely to deceive a reasonable consumer, and, in  
9 deceiving Plaintiff Chris Ayers, did deceive a reasonable consumer. Furthermore, when  
10 purchasing a WD Red NAS drive, Mr. Ayers relied upon Defendant’s advertisements and/or  
11 prior course of conduct or dealing in presuming that a WD Red NAS drive would be  
12 compatible with NAS and RAID environments.

13 355. Defendant’s misconduct caused Plaintiff Chris Ayers and each member of the  
14 Florida Subclass to be injured. For example, and without limitation, Defendant’s false  
15 advertising caused Plaintiff Chris Ayers to purchase a WD Red NAS drive. If Defendant’s  
16 advertising had not been unfair, unconscionable or deceptive, Plaintiff Chris Ayers would not  
17 have purchased that drive. He and each member of the Florida Subclass has been harmed by the  
18 amount paid out-of-pocket for the WD Red NAS drive. Mr. Ayers and the members of the  
19 Florida Subclass may therefore pray for an award of actual damages.

20 356. Mr. Ayers and the members of the Florida Subclass may also pray for the  
21 imposition of injunctive relief which limits and polices Defendant’s advertisements within or  
22 reaching Florida. The balance of the equities favors the entry of permanent injunctive relief  
23 against Defendant. Plaintiff and the general public will be irreparably harmed absent the entry  
24 of permanent injunctive relief against Defendant. Plaintiff and the general public lack an  
25 adequate remedy at law. A permanent injunction against Defendant is in the public interest.  
26 Defendant’s unlawful behavior is capable of repetition or re-occurrence absent the entry of a  
27 permanent injunction.  
28

**COUNT V**

**Violation of the Massachusetts Unfair and Deceptive Business Practices Act  
Mass. Gen. Laws Ch. 93A, § 9**

357. Plaintiffs reallege and incorporate by reference all paragraphs previously alleged herein.

358. Plaintiff Brian Conway brings this claim on behalf individually and on behalf of the members of the Massachusetts Subclass against Defendant.

359. Section 2 of Chapter 93A prevents the use of “unfair or deceptive acts or practices in the conduct of any trade or commerce.” An act is “deceptive” under chapter 93A “if it could reasonably be found to have caused a person to act differently from the way he otherwise would have acted.” *Tagliente v. Himmer*, 949 F.2d 1, 7 (1st Cir. 1991).

360. Section 9 provides: “Any person . . . who has been injured by another person’s use or employment of any method, act or practice declared to be unlawful by section two . . . may bring an action in the superior court . . . for damages and such equitable relief, including an injunction, as the court deems to be necessary and proper. . . Any persons entitled to bring such action may, if the use or employment of the unfair or deceptive act or practice has caused similar injury to numerous other persons similarly situated and if the court finds in a preliminary hearing that he adequately and fairly represents such other persons, bring the action on behalf of himself and such other similarly injured and situated persons.”

361. Pursuant to the definitions codified at Chapter 93A § 1: Defendant Western Digital Corporation is a “person”; and, Defendant is engaged in “trade” and “commerce” in Massachusetts by offering for sale the WD Red NAS drive that directly or indirectly affect the people of Massachusetts.

362. By engaging in the acts and omissions alleged above and incorporated herein, Defendant has engaged and continues to engage in unfair or deceptive acts or practices in the conduct of trade or commerce.

363. As alleged above and incorporated herein, Defendant’s advertisements and promotional materials contain affirmative misrepresentations of fact. Most obviously, the drive is named the “WD Red NAS” drive, but it is not compatible with or appropriate to use in a

1 NAS environment. Other misrepresentations include: “**Built for NAS compatibility,**”  
 2 “**Designed for RAID environments,**” “**specifically designed for use in NAS systems with up**  
 3 **to 8 bays**” and appropriate for “**small and home office NAS systems in a 24x7 environment.**”

4 364. In addition, Defendant’s advertisements and promotional materials violate the  
 5 Massachusetts Unfair and Deceptive Business Practices Act because of their nondisclosure of a  
 6 material fact—that the drives contained inferior and inappropriate SMR technology instead of  
 7 the traditional CMR technology. Defendant’s decision to omit public announcement of its  
 8 switch to inferior SMR technology was part of a knowing and deliberate decision not to  
 9 disclose the fact. Discovery will reveal that Defendant and its officers and employees  
 10 knowingly made the switch in technology and knowingly decided not to inform consumers of  
 11 the switch.

12 365. Defendant’s misrepresentations and nondisclosures deceive and have a tendency  
 13 to deceive a reasonable consumer and the general public.

14 366. Defendant’s misrepresentations and nondisclosures are material, in that a  
 15 reasonable person would attach importance to the information and would be induced to act on  
 16 the information in making purchase decisions.

17 367. Plaintiff Brian Conway reasonably relied upon Defendant’s affirmative  
 18 statements and upon Defendant’s silence regarding any change in technology, or future change  
 19 in technology which would affect a replacement drive sent by Defendant to Mr. Conway under  
 20 warranty, when Mr. Conway purchased a WD Red NAS drive.

21 368. Defendant’s misconduct caused Plaintiff Brian Conway and the members of the  
 22 Massachusetts Subclass to suffer an injury, adverse consequence, or loss. For example, and  
 23 without limitation, Defendant’s deceptive acts and/or false advertising caused Plaintiff Brian  
 24 Conway to purchase a WD Red NAS drive, which was then replaced by Defendant under  
 25 warranty with an SMR-technology WD Red NAS drive. If Defendant’s acts, statements, and  
 26 omissions had complied with the requirements of Massachusetts law, Plaintiff Brian Conway  
 27 would not have purchased the drive. He and the members of the Massachusetts Subclass have  
 28 been harmed by the actual amount paid out-of-pocket for the WD Red Drive, or for a drive

1 which was replaced under warranty with an inferior SMR hard drive.

2 369. For each loss, Plaintiff Brian Conway and each member of the Massachusetts  
3 Subclass may recover an award of actual damages or twenty-five dollars, whichever is greater.  
4 Ch. 93A, § 9(3). Because Defendant acted willfully or knowingly, Plaintiff Brian Conway and  
5 each member of the Massachusetts Subclass may recover up to three but not less than two times  
6 this amount. Additionally, Plaintiff Brian Conway may recover attorneys' fees and costs.

7 370. Plaintiff Brian Conway and the members of the Massachusetts Subclass may  
8 also pray for the imposition of injunctive relief which limits and polices Defendant's  
9 advertisements within or reaching Massachusetts. The balance of the equities favors the entry  
10 of permanent injunctive relief against Defendant. Plaintiff Brian Conway and the general public  
11 will be irreparably harmed absent the entry of permanent injunctive relief against Defendant.  
12 Plaintiff Brian Conway and the general public lack an adequate remedy at law. A permanent  
13 injunction against Defendant is in the public interest. Defendant's unlawful behavior is capable  
14 of repetition or re-occurrence absent the entry of a permanent injunction.

15 371. In accordance with Ch. 93A, § 9(3), Plaintiff Brian Conway's counsel served  
16 Defendant with written notice of its violation of Ch. 93A and a demand for relief on June 16,  
17 2020. Defendant did not make a written tender of settlement or otherwise respond to the  
18 demand for relief.

19 **COUNT VI**  
20 **Violation of the Missouri Merchandising Practices Act**  
21 **Mo. Rev. Stat. §§ 407.010, *et seq.***

22 372. Plaintiffs reallege and incorporate by reference all paragraphs previously alleged  
23 herein.

24 373. Plaintiff David Eaton brings this claim on behalf individually and on behalf of  
25 the members of the Missouri Subclass against Defendant.

26 374. Defendant is a "person" pursuant to Mo. Rev. Stat. § 407.010(5). Defendant is  
27 engaged in "trade" or "commerce" pursuant to Mo. Rev. Stat. § 407.010(7) in that Defendant is  
28 engaged in the advertising, offering for sale, sale, or distribution, or any combination thereof,  
of any services and any property, tangible or intangible, real, personal, or mixed, and any other

1 article, commodity, or thing of value wherever situated. The terms “trade” and “commerce”  
2 include any trade or commerce directly or indirectly affecting the people of the State of  
3 Missouri.

4 375. By engaging in the acts and omissions alleged above and incorporated herein,  
5 Defendant has engaged and continues to engage in the act, use or employment of deception,  
6 fraud, false pretense, false promise, misrepresentation, unfair practice or the concealment,  
7 suppression, or omission of any material fact in connection with the sale or advertisement of  
8 any merchandise in trade or commerce.

9 376. Plaintiff David Eaton purchased Defendant’s merchandise in the State of  
10 Missouri. Mr. Eaton’s purchase was for personal, family, or household purposes.

11 377. Defendant’s misconduct caused Plaintiff David Eaton and the members of the  
12 Subclass to suffer an ascertainable loss of money or property. For example, and without  
13 limitation, Defendant’s false advertising caused Plaintiff David Eaton to purchase a WD Red  
14 NAS drive. If Defendant’s advertising had not used or employed deception, fraud, false  
15 pretense, false promise, misrepresentation, unfair practice or the concealment, suppression, or  
16 omission of any material fact, Plaintiff David Eaton would not have purchased that drive. He  
17 and the members of the Subclass have been harmed by the ascertainable amount paid out-of-  
18 pocket for the WD Red NAS drive. His ascertainable loss and that of the Subclass was a result  
19 of the acts and omissions of Defendant declared unlawful by Mo. Rev. Stat. § 407.020, and, as  
20 such, Mr. Eaton and each member of the Subclass may pray for an award of his actual  
21 damages.

22 378. Defendant’s conduct was egregious and demonstrated clear and disturbing  
23 disregard for Mr. Eaton’s economic interests and the security of his data. As such, Mr. Eaton  
24 and each member of the Subclass may pray for an award of punitive damages under Mo. Rev.  
25 Stat. § 407.025(1).

26 379. Mr. Eaton and the members of the Subclass may also pray for the imposition of  
27 injunctive relief which limits and polices Defendant’s advertisements within or reaching  
28 Missouri. The balance of the equities favors the entry of permanent injunctive relief against



1 Defendant. Plaintiff and the general public will be irreparably harmed absent the entry of  
 2 permanent injunctive relief against Defendant. Plaintiff and the general public lack an adequate  
 3 remedy at law. A permanent injunction against Defendant is in the public interest. Defendant's  
 4 unlawful behavior is capable of repetition or re-occurrence absent the entry of a permanent  
 5 injunction.

**COUNT VII**  
**Violation of New York General Business Law § 349**

7 380. Plaintiffs incorporate by reference and re-allege each and every allegation set  
 8 forth above as though fully set forth herein.

9 381. Plaintiff Steven Gravel brings this claim individually and on behalf of members  
 10 of the New York Subclass against Defendant.

11 382. By the acts and conduct alleged herein, Defendant committed unfair or  
 12 deceptive acts and practices by failing to disclose that the WD Red NAS Drives use SMR  
 13 technology, and in fact specifically represented the WD Red NAS Drives as being suitable for  
 14 NAS and RAID when they were not due to the use of SMR technology.

15 383. The foregoing deceptive acts and practices were directed at consumers.

16 384. The foregoing deceptive acts and practices are misleading in a material way  
 17 because SMR technology has inferior speed (performance) and data security to standard CMR  
 18 technology used in most consumer-grade HDDs. Further, as a result of these characteristics,  
 19 SMR is not recommended and is unsuitable for use in NAS or RAID, the intended purpose of  
 20 the WD Red NAS Drives. Accordingly, Defendant's representations and omission were  
 21 material to Plaintiff Steven Gravel and members of the New York Subclass.

22 385. Defendant alone possessed the knowledge that the WD Red NAS Drives use  
 23 SMR technology, and did not provide that information to consumers until April 2020.

24 386. Plaintiff Steven Gravel and members of the New York Subclass were injured as  
 25 a result because (a) they would not have purchased the WD Red NAS Drives if they had known  
 26 that the WD Red NAS Drives use SMR technology, and (b) they overpaid for the Hard Drives  
 27 on account of Defendant's failure to disclose that the WD Red NAS Drives use SMR  
 28 technology, and/or Defendant's representations that the WD Red NAS Drives were suitable for

1 NAS and RAID.

2 387. On behalf of himself and other members of the New York Subclass, Plaintiff  
3 Steven Gravel seeks to enjoin the unlawful acts and practices described herein, to recover his  
4 actual damages or fifty dollars, whichever is greater, three times actual damages, and  
5 reasonable attorneys' fees.

6 **COUNT VIII**  
7 **Violation of New York General Business Law § 350**

8 388. Plaintiffs incorporate by reference and re-allege each and every allegation set  
9 forth above as though fully set forth herein.

10 389. Plaintiff Steven Gravel brings this claim individually and on behalf of members  
11 of the New York Subclass against Defendant.

12 390. Based on the foregoing, Defendant has engaged in consumer-oriented conduct  
13 that is deceptive or misleading in a material way, which constitutes false advertising in  
14 violation of Section 350 of the New York General Business Law, by failing to disclose that the  
15 WD Red NAS Drives use SMR technology, and falsely representing that the WD Red NAS  
16 Drives are suitable for NAS and RAID when they are not.

17 391. The foregoing advertising was directed at consumers and was likely to mislead a  
18 reasonable consumer acting reasonably under the circumstances.

19 392. These representations and omission resulted in consumer injury or harm to the  
20 public interest.

21 393. Defendant alone possessed the knowledge that the WD Red NAS Drives use  
22 SMR technology, and did not provide that information to consumers until April 2020.

23 394. As a result of this omission, Plaintiff Steven Gravel and members of the New  
24 York Subclass have suffered economic injury because (a) they would not have purchased the  
25 WD Red NAS Drives if they had known that the WD Red NAS Drives use SMR technology,  
26 and (b) they overpaid for the Hard Drives on account of Defendant's failure to disclose that the  
27 WD Red NAS Drives use SMR technology, and/or Defendant's representations that the WD  
28 Red NAS Drives were suitable for NAS and RAID.

396. Plaintiffs incorporate by reference and re-allege each and every allegation set forth above as though fully set forth herein.

397. Plaintiff James Backus brings this claim individually and on behalf of members of the Virginia Subclass against Defendant.

398. Pursuant to the definitions codified at Va. Code Ann. § 59.1-198: the WD Red NAS Drives are “goods” in that they constitute tangible personal property; Defendant is the WD Red NAS Drives’ “supplier” in that Defendant is a seller, lessor or licensor who advertises, solicits, or engages in consumer transactions and/or a manufacturer, distributor or licensor who advertises and sells, leases or licenses goods or services to be resold, leased, or sublicensed by other persons in consumer transactions; Plaintiff James Backus’s purchase of the WD Red Drive was a “consumer transaction” in that the WD Red Drive was to be used primarily for personal, family or household purposes.

399. By engaging in the acts and omissions alleged above and incorporated herein, Defendant has engaged and continues to engage in unlawful fraudulent acts or practices. Specifically, Defendant has and continues to: misrepresent that the WD Red NAS Drives have certain quantities, characteristics, uses, or benefits when they do not; misrepresent that the WD Red NAS Drives are of a particular standard, quality, grade, style or model; advertise or offer for sale WD Red NAS Drives that are defective or that are imperfect or “not first class” without clearly and unequivocally indicating in the advertisement or offer for sale that the goods are defective, imperfect or “not first class”; advertise goods with intent not to sell them as advertised, or with intent not to sell at the terms advertised; and/or use any other deception, fraud, false pretense, false promise, or misrepresentation in connection with a consumer

1 transaction.

2 400. As alleged above and incorporated herein, Defendant's advertisements and  
3 promotional materials contain affirmative misrepresentations of fact. Most obviously, the drive  
4 is named the "**WD Red NAS**" drive, but it is not compatible with or appropriate to use in a  
5 NAS environment. Other misrepresentations include: "**Built for NAS compatibility,**"  
6 "**Designed for RAID environments,**" "**specifically designed for use in NAS systems with up**  
7 **to 8 bays**" and appropriate for "**small and home office NAS systems in a 24x7 environment.**"

8 401. In addition, Defendant's advertisements and promotional materials violate the  
9 Virginia Consumer Protection Act because of their nondisclosure of a material facts—that the  
10 drives contained inferior and inappropriate SMR technology instead of the traditional CMR  
11 technology. Defendant's decision to omit public announcement of its switch to inferior SMR  
12 technology was part of a knowing and deliberate decision not to disclose the fact. Discovery  
13 will reveal that Defendant and its officers and employees knowingly made the switch in  
14 technology and knowingly decided not to inform consumers of the switch.

15 402. Plaintiff James Backus reasonably relied upon Defendant's affirmative  
16 statements and upon Defendant's silence regarding any change in technology when Mr. Backus  
17 purchased a WD Red NAS drive.

18 403. Defendant's misconduct caused Plaintiff James Backus and the members of the  
19 Virginia Subclass to suffer an actual loss. For example, and without limitation, Defendant's  
20 deceptive acts and/or false advertising caused Plaintiff James Backus to purchase a WD Red  
21 NAS drive. If Defendant's acts, statements and omissions had complied with the requirements  
22 of Virginia law, Plaintiff James Backus would not have purchased that drive. He and the  
23 members of the Subclass have been harmed by the actual amount paid out-of-pocket for the  
24 WD Red Drive.

25 404. For each loss, Mr. Backus and each member of the Subclass may pray for an  
26 award of damages equal to five hundred dollars or his actual damages, whichever is greater.  
27 Va. Code Ann. §§ 59.1-204(A). Because Defendant acted willfully, Mr. Backus and each  
28 member of the Subclass may also pray for an award of treble damages.

406. Plaintiffs incorporates by reference and re-allege each and every allegation set forth above as though fully set forth herein.

407. Plaintiff Nicholas Malone brings this claim individually and on behalf of members of the Wisconsin Subclass against Defendant.

408. The Wisconsin Deceptive Trade Practices Act (“WDTPA”) prohibits a “representation or statement of fact which is untrue, deceptive or misleading.” Wis. Stat. § 100.18(1).

409. Western Digital is a “person, firm, corporation or association” within the meaning of Wis. Stat. § 100.18(1).

410. Plaintiff Nicholas Malone and members of the Wisconsin Subclass are members of “the public” within the meaning of Wis. Stat. § 100.18(1).

411. Section 100.18(1), in relevant part, provides that “no person, firm, corporation, or association, or agent or employee thereof, with intent to sell, distribute, or increase the consumption of ... anything offered” by it to the public, shall place before the public a statement that contains “assertion, representation or statement of fact which is untrue, deceptive or misleading.”

412. Defendant misrepresented the quality of the WD Red NAS Drives by designating them as suitable for NAS and RAID, when the WD Red NAS Drives were not due

1 to Defendant secretly manufacturing the drives with SMR technology. Defendant also omitted  
2 that the drives use SMR technology.

3 413. Defendant intended that Plaintiff Nicholas Malone and Wisconsin Subclass  
4 members rely on its misrepresentations and omissions.

5 414. As a proximate result of Defendant's misrepresentations and omissions, Plaintiff  
6 Nicholas Malone and Wisconsin Subclass members suffered direct economic loss (pecuniary),  
7 suffered an injury-in-fact and/or actual damages by paying a price premium for the WD Red  
8 NAS Drives based on the understanding that they were suitable for NAS and RAID. Had  
9 Plaintiff Nicholas Malone and other Wisconsin Subclass members known that the WD Red  
10 NAS Drives used SMR technology, they would not have bought the WD Red NAS Drives, or  
11 they would not have purchased them on the same terms.

12 415. In the course of its business, Western Digital concealed its use of SMR  
13 technology in the WD Red NAS Drives as described herein and otherwise engaged in activities  
14 with a tendency or capacity to deceive. Western Digital also engaged in unlawful trade  
15 practices by employing deception, deceptive acts or practices, fraud, misrepresentations, or  
16 concealment, suppression or omission of any material fact with intent that others rely upon  
17 such concealment, suppression or omission, in connection with the sale of the WD Red NAS  
18 Drives.

19 416. Western Digital's concealment of the use of SMR technology in the WD Red  
20 NAS Drives was material to Plaintiff Nicholas Malone and Wisconsin Subclass members.

21 417. Plaintiff Nicholas Malone and Wisconsin Subclass members suffered  
22 ascertainable loss caused by Western Digital's misrepresentations and its failure to disclose  
23 material information related to the WD Red NAS Drives. Had they been aware that the WD  
24 Red NAS Drives used SMR technology, Plaintiff Nicholas Malone and Wisconsin Subclass  
25 members either would have paid less for their WD Red NAS Drives or would not have  
26 purchased them at all. Plaintiff Nicholas Malone and Wisconsin Subclass members did not  
27 receive the benefit of their bargain as a result of Western Digital's concealment of the use of  
28 SMR technology in the WD Red NAS Drives.

419. Plaintiff Nicholas Malone and Wisconsin Subclass members are entitled to damages, attorneys' fees, and other relief that the Court deems proper. Because Western Digital's conduct was committed knowingly and/or intentionally, Plaintiff Nicholas Malone and Wisconsin Subclass members are also entitled to treble and/or punitive damages.

420. Mr. Malone and the members of the Wisconsin Subclass may also pray for the imposition of injunctive relief which limits and polices Defendant's advertisements within or reaching Wisconsin. The balance of the equities favors the entry of permanent injunctive relief against Defendant. Plaintiff and the general public will be irreparably harmed absent the entry of permanent injunctive relief against Defendant. Plaintiff and the general public lack an adequate remedy at law. A permanent injunction against Defendant is in the public interest. Defendant's unlawful behavior is capable of repetition or re-occurrence absent the entry of a permanent injunction.

**COUNT XI**  
**Breach of Express Warranty**

**COUNT XI**  
**Breach of Express Warranty**

421. Plaintiffs reallege and incorporate by reference all paragraphs previously alleged herein.

422. Plaintiffs bring this claim individually and on behalf of the members of the Classes against Defendant.

423. In connection with the sale of the WD Red NAS drives, Defendant, as the designer, manufacturer, marketer, distributor, and/or seller made multiple statements about its SMR WD Red NAS hard drives which constitute express warranties. Said statements include, but are not limited to: **“Built for NAS compatibility,” “Designed for RAID environments,” “specifically designed for use in NAS systems with up to 8 bays,”** designed for **“Small and home office NAS systems in a 24x7 environment,” “Desktop drives aren’t purpose-built for NAS. But WD Red drives with NASware technology are,”** and **“purpose-built to balance performance and reliability in NAS and RAID environments.”**



424. As detailed above, Defendant's WD Red NAS drives do not satisfy these express warranties because they use SMR technology.

425. Plaintiffs and members of the Classes have been injured as a direct and proximate result of Defendant's breach of express warranty in that each person has, without limitation, paid out-of-pocket for, or had a product replaced with, a product that was not as advertised or warranted.

426. On June 16, 2020, Defendant was notified of its breach of express warranty as to all present and future Plaintiffs and members of the Classes. Defendant did not remedy its breach. Defendant failed to give an appropriate correction, repair, replacement, or other remedy.

**COUNT XII**  
**Breach of the Implied Warranty**

427. Plaintiffs reallege and incorporate by reference all paragraphs previously alleged herein.

428. Plaintiffs bring this claim individually and on behalf of the members of the Classes against Defendant.

429. Defendant, as the designer, manufacturer, marketer, distributor, and/or seller, impliedly warranted that the WD Red NAS Drives were suited for use in NAS systems and RAID arrays. Defendant breached the warranty implied in the contract for the sale of the WD Red NAS Drives because the WD Red NAS Drives could not “pass without objection in the trade under the contract description,” the WD Red NAS Drives were not “of fair average quality within the description,” the WD Red NAS Drives were not “adequately contained, packaged, and labeled as the agreement may require,” and the WD Red NAS Drives did not “conform to the promise or affirmations of fact made on the container or label.” *See* U.C.C. § 2-314(2) (listing requirements for merchantability). As a result, Plaintiffs and the members of the Classes did not receive the goods as impliedly warranted by Defendant to be merchantable.

430. Plaintiffs and the members of the Classes purchased the WD Red NAS Drives in reliance upon Defendant's skill and judgment in properly packaging and labeling the WD Red

1 NAS Drives.

2 431. The WD Red NAS Drives were not altered by Plaintiff and the Class Members  
3 and Subclass Members.

4 432. The WD Red NAS Drives were not fit for their intended purpose when they left  
5 the exclusive control of Defendant.

6 433. Defendant knew that the WD Red NAS Drives would be purchased and used  
7 without additional testing by Plaintiffs and the members of the Classes.

8 434. The WD Red NAS Drives were defectively designed and unfit for their intended  
9 purpose, and Plaintiffs and the members of the Classes.

10 435. Plaintiffs and members of the Classes were injured as a direct and proximate  
11 result of Defendant's breach because (i) they would not have purchased the WD Red NAS  
12 Drives if they had known that it utilized inferior SMR technology and is therefore unsuitable  
13 for its stated and advertised purpose for use in a NAS system or RAID array, and (ii) they  
14 overpaid for the WD Red NAS Drives on account of WDC's misrepresentations that the drives  
15 are "built for NAS compatibility," "purpose-built for NAS," "purpose-built to balance  
16 performance and reliability in NAS and RAID environments," "specifically designed for use in  
17 NAS systems with up to 8 bays," "helps ensure your data is protected ... in a NAS or RAID  
18 environment," and that the drives are appropriate for "small and home office NAS systems in a  
19 24x7 environment."

20 436. Defendant breached and continues to breach the implied warranty of fitness for a  
21 particular purpose with regard to its sale of, or replacement with, its SMR WD Red NAS  
22 drives.

### 23 **COUNT XIII**

#### 24 **Breach of Implied Warranty Under the Song-Beverly Act, Cal. Civ. Code §§ 1790 *et seq.* and California Commercial Code § 2314**

25 437. Plaintiffs reallege and incorporate by reference all paragraphs previously alleged  
26 herein.

27 438. Plaintiffs bring this claim individually and on behalf of members of the  
28 proposed Classes against Defendant.

439. Under the Song-Beverly Consumer Warranty Act, Cal. Civ. Code § 1790, *et seq.*, and California Commercial Code § 2314, every sale of consumer goods in California is accompanied by both a manufacturer’s and retail seller’s implied warranty that the goods are merchantable, as defined in that Act. In addition, every sale of consumer goods in California is accompanied by both a manufacturer’s and retail seller’s implied warranty of fitness when the manufacturer or retailer has reason to know that the goods as represented have a particular purpose (here, to be used in NAS, RAID, or ZFS arrays) and that the buyer is relying on the manufacturer’s or retailer’s skill or judgment to furnish suitable goods consistent with that represented purpose.

440. The WD Red NAS Drive at issue here is a “consumer goods” within the meaning of Cal. Civ. Code § 1791(a).

441. Plaintiffs and the members of the Classes who purchased one or more of the WD Red NAS Drives are “retail buyers” within the meaning of Cal. Civ. Code § 1791.

442. Defendant is in the business of manufacturing, assembling, producing, and/or selling the WD Red NAS Drives to retail buyers, and therefore are a “manufacturer” and “seller” within the meaning of Cal. Civ. Code § 1791.

443. Defendant sells its products through a network of authorized and certified dealers. Defendant has entered into various contractual agreements with its dealers. The dealers were not the intended beneficiaries of the warranties associated with the WD Red NAS Drives. Plaintiffs and the members of the Classes were the intended beneficiaries of the warranties associated with the WD Red NAS Drives.

444. Defendant impliedly warranted to retail buyers that the WD Red NAS Drives were merchantable in that they would: (i) pass without objection in the trade or industry under the contract description, and (ii) were fit for the ordinary purposes for which the WD Red NAS Drives are used. For a consumer good to be “merchantable” under the Act, it must satisfy both of these elements. Defendant breached these implied warranties because the WD Red NAS Drives would not pass without objection in the trade or industry under its description and was not fit for its ordinary purpose for which it is used.

447. The WD Red NAS Drives was defective at the time of sale when they left the exclusive control of Defendant.

449. As a direct and proximate cause of Defendant's breach of the implied warranty, Plaintiffs and the members of the Classes have been injured in that they paid out-of-pocket for WD Red NAS Drives that they would not have purchased if they knew the truth about the WD Red NAS Drives, namely, that they were unfit for use as in NAS and RAID environments.

WHEREFORE, Plaintiffs, individually and on behalf of the proposed Classes, seek judgment against Defendant Western Digital Corporation as follows:

B. For an order declaring Defendant's conduct violates the statutes referenced herein;

D. For an order entering a public injunction requiring Defendant to stop advertising, and to instruct its resellers to stop advertising, any hard drives with drive-managed SMR technology as being appropriate for NAS devices or RAID (including by removing “NAS” from such products’ names);

E. For an order permanently enjoining Defendant from the unlawful conduct alleged herein;

1 F. For an order retaining jurisdiction to police Defendant's compliance with the  
2 permanent injunctive relief;

3 G. For an order to provide notice to every Class member that the WD Red NAS  
4 hard drive they purchased is not suited for its intended purpose;

5 H. For an order to provide a refund to Plaintiffs and the Classes for their WD Red  
6 NAS hard drives in an amount to be determined at trial, or to provide Plaintiffs and the Classes  
7 with brand-new replacement CMR-technology hard drives that are truly suited for use with  
8 NAS devices and RAID, at no additional cost;

9 I. For compensatory and punitive damages in amounts to be determined by the  
10 Court and/or jury;

11 J. For pre-judgment and post-judgment interest on all amounts awarded to the  
12 extent allowed by law;

13 K. For an order awarding Plaintiffs and the Classes their reasonable attorneys' fees  
14 and expenses and costs of suit; and/or

15 L. To provide all other relief to which Plaintiffs and the Classes may show  
16 themselves justly entitled.

17 **DEMAND FOR A JURY TRIAL**

18 Pursuant to Federal Rule of Civil Procedure 38(b), Plaintiffs, individually and on behalf  
19 of the Classes, demand a trial by jury of all issues so triable.

20  
21 Dated: August 10, 2020

Respectfully submitted,

22 HATTIS & LUKACS

23 By: 

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*Attorneys for Plaintiffs and the Putative Classes*

# EXHIBIT A



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*Attorneys for Plaintiffs and the Proposed Class*

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

NICHOLAS MALONE,  
CHRIS AYERS,  
JAMES BACKUS,  
BRIAN CONWAY,  
DAVID EATON,  
STEVEN GRAVEL,  
JAMES RAAYMAKERS, and  
TOD WEITZEL,  
on behalf of themselves and all others  
similarly situated,

Plaintiffs,

v.

WESTERN DIGITAL CORPORATION,  
Defendant.

Case No. 5:20-cv-03584-NC

**DECLARATION OF  
DANIEL M. HATTIS  
PURSUANT TO THE CALIFORNIA  
CONSUMERS LEGAL REMEDIES ACT  
(CAL. CIVIL CODE § 1780(D))**

I, DANIEL M. HATTIS, hereby declare and state as follows:

1. I am over the age of 18 years, I am a member in good standing of the State Bar of California, and I am an attorney of record in this civil action, in which I am representing Plaintiffs Nicholas Malone, Chris Ayers, James Backus, Brian Conway, David Eaton, Steven

1 Gravel, James Raaymakers and Tod Weitz. The facts contained herein are based on my  
2 personal knowledge except as to facts stated upon information and belief and, as to those, I  
3 believe it to be true.

4 2. This civil action pleads a cause of action for violation of the California  
5 Consumers Legal Remedies Act (“CLRA”) against Defendant Western Digital Corporation  
6 (“WDC” or “Defendant”). This civil action has been commenced in a county described in  
7 Section 1780(d) of the California Civil Code as a proper place for the trial of the action.

8 3. This action is being commenced in Santa Clara County, California, because that  
9 is the county in which Defendant has its principal place of business. WDC’s headquarters are  
10 located at 5601 Great Oaks Parkway, San Jose, California 95119.

11 I declare under penalty of perjury under the laws of the State of California that the  
12 foregoing is true and correct.

13  
14 Executed on August 10, 2020, in King County, State of Washington.

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17 DANIEL M. HATTIS  
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